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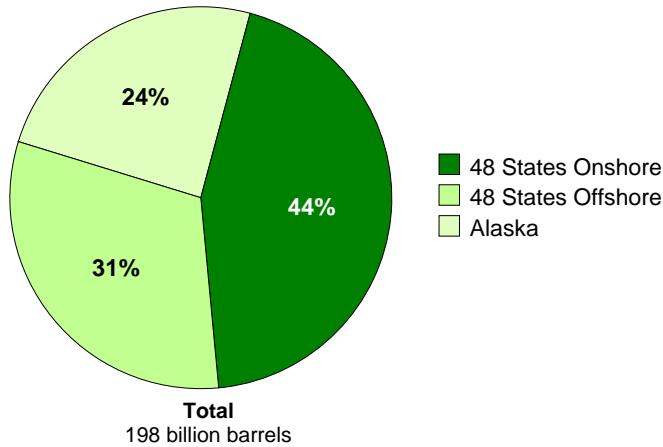
Energy Resources



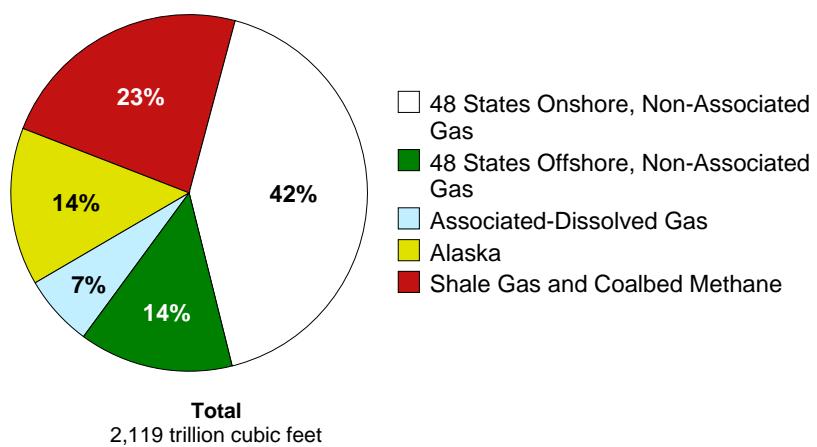
New oil and gas drilling activity in Wyoming. Source: Dreamstime Stock Photos.

Figure 4.1 Technically Recoverable Crude Oil and Natural Gas Resource Estimates, 2007

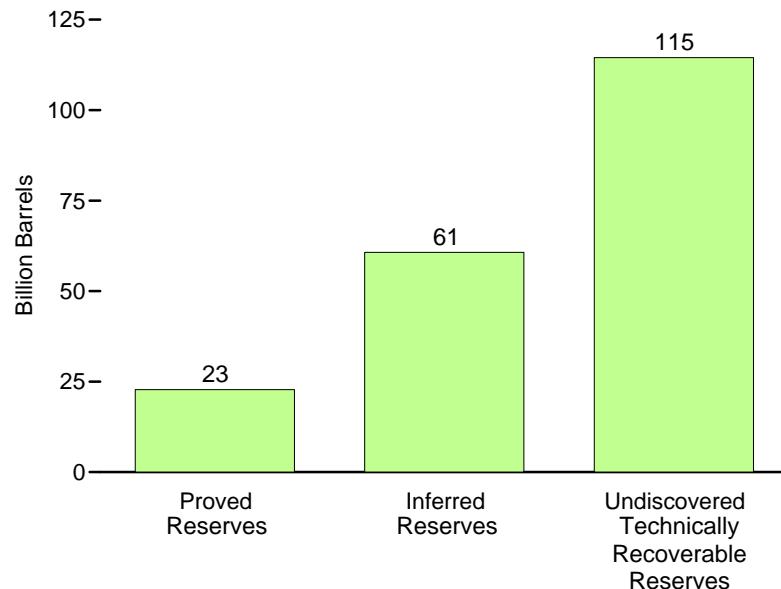
Crude Oil and Lease Condensate, Total Technically Recoverable Resources



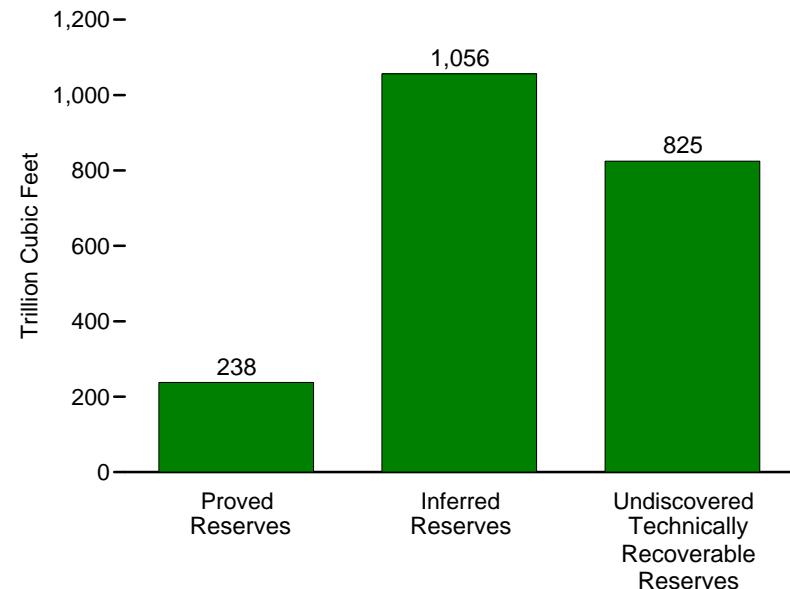
Dry Natural Gas, Total Technically Recoverable Resources



Crude Oil and Lease Condensate by Type



Dry Natural Gas by Type



Note: Sum of components may not equal 100 percent due to independent rounding.

Source: Table 4.1.

Table 4.1 Technically Recoverable Crude Oil and Natural Gas Resource Estimates, 2007

Region	Proved Reserves	Inferred Reserves ¹	Undiscovered Technically Recoverable Resources	Total Technically Recoverable Resources
Crude Oil and Lease Condensate (billion barrels)				
48 States Onshore	14.2	48.3	25.3	87.8
48 States Offshore	4.4	10.3	47.2	61.9
Alaska	4.2	2.1	42.0	48.3
Total U.S.	22.8	60.7	114.5	198.0
Dry Natural Gas ² (trillion cubic feet)				
Conventionally Reservoired Fields ³	194.0	671.3	760.4	1,625.7
48 States Onshore Non-Associated Gas	149.0	595.9	144.1	889.0
48 States Offshore Non-Associated Gas ⁴	12.4	50.7	233.0	296.0
Associated-Dissolved Gas ⁵	20.7	(⁶)	⁶ 117.2	137.9
Alaska	11.9	24.8	266.1	302.8
Shale Gas and Coalbed Methane	43.7	385.0	64.2	493.0
Total U.S.	237.7	1,056.3	824.6	2,118.7

¹ Inferred reserves (reserve growth) is the volume by which the estimate of total recovery from a known crude oil or natural gas reservoir or aggregation of such reservoirs is expected to increase during the time between discovery and permanent abandonment.

² Natural gas plant liquids are not included.

³ Conventionally reservoired deposits are discrete subsurface accumulations of crude oil or natural gas usually defined, controlled, or limited by hydrocarbon/water contacts.

⁴ Includes Federal offshore and State offshore waters (near-shore, shallow-water areas under State jurisdiction).

⁵ Associated-dissolved (AD) natural gas is gas that occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved gas).

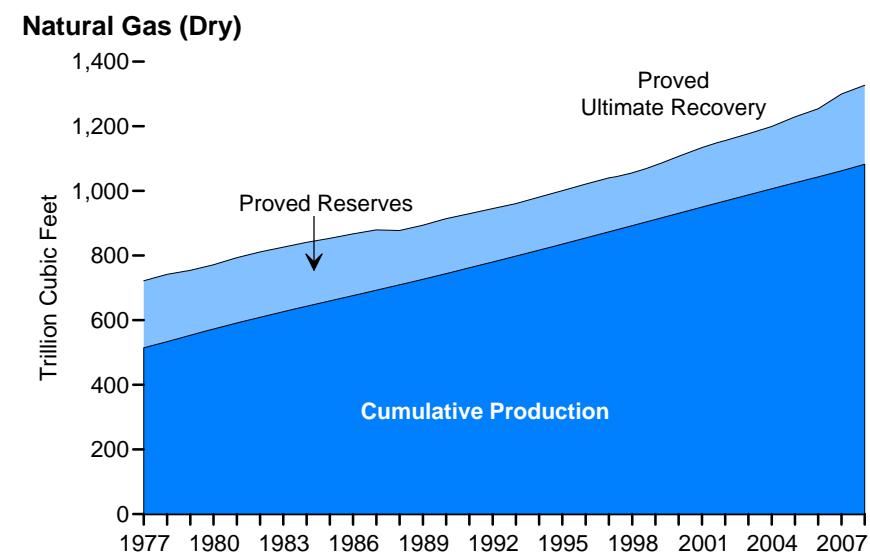
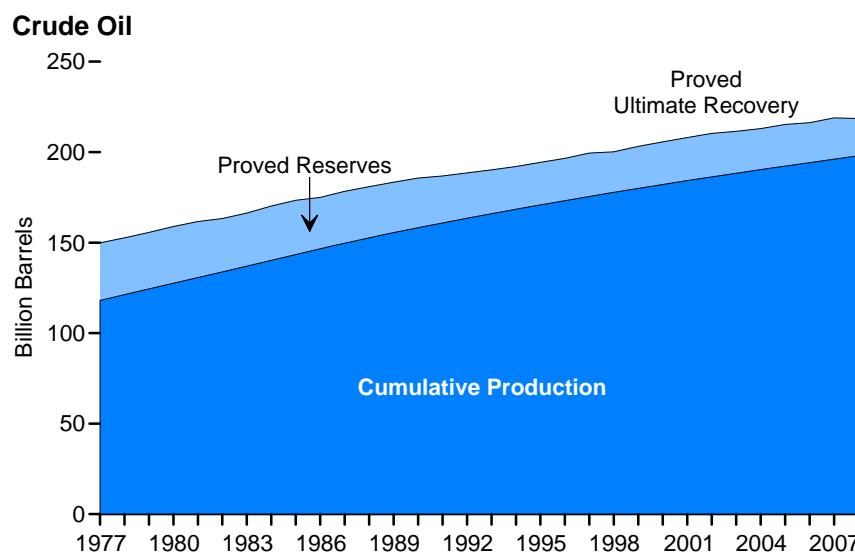
⁶ Inferred reserves for associated-dissolved natural gas are included in "Undiscovered Technically Recoverable Resources."

Notes: • Data are at end of year. • "Technically recoverable" resources are those that are producible

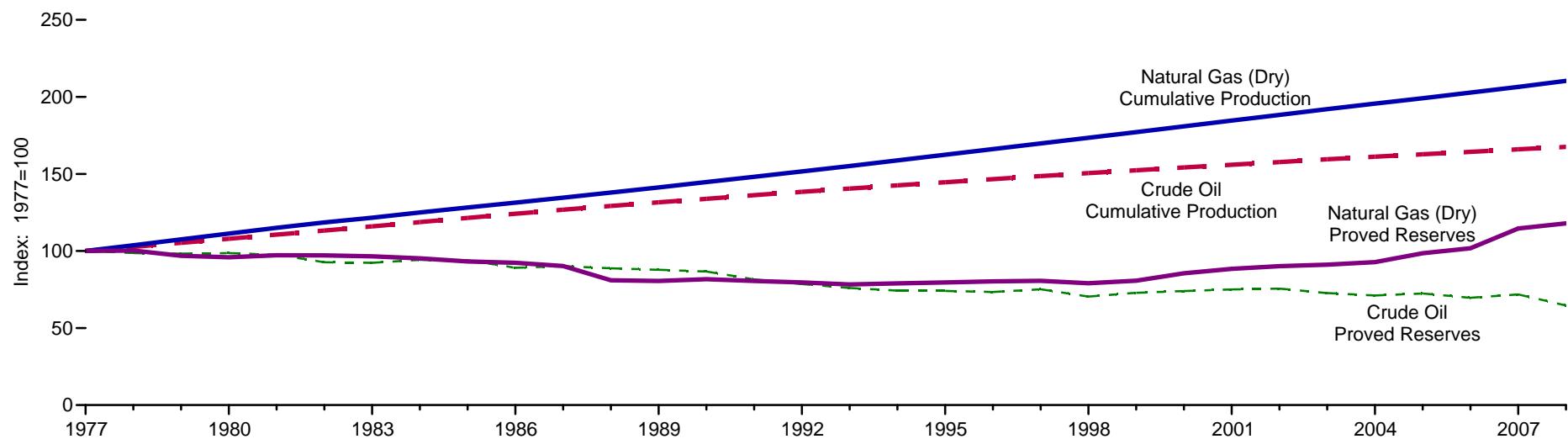
using current technology without reference to the economic viability thereof. • Resources in areas where drilling is officially prohibited are not included. Estimates of the resources within a 50-mile buffer off the Atlantic coast are also excluded from the technically recoverable volumes. • "48 States" is the United States excluding Alaska and Hawaii.

Sources: **Proved Reserves:** U.S. Energy Information Administration (EIA), Office of Oil and Gas. Table values reflect the removal of intervening reserve additions between the date of the latest available assessment and December 31, 2007. **Inferred Reserves:** EIA, Office of Oil and Gas and Office of Integrated Analysis and Forecasting. **Undiscovered Onshore, State Offshore, and Alaska:** National Oil and Gas Resource Assessment Team, United States Geological Survey with adjustments to shale gas and coalbed methane by Advanced Resources, International and the EIA, Office of Integrated Analysis and Forecasting, Oil and Gas Division. **Undiscovered Federal (Outer Continental Shelf) Offshore:** Minerals Management Service, Resource Evaluation Division.

Figure 4.2 Crude Oil and Natural Gas Cumulative Production, Proved Reserves, and Proved Ultimate Recovery, 1977-2008



Cumulative Production and Proved Reserves, Indexed



Notes: • Data are at end of year. • Crude oil includes lease condensate.

Source: Table 4.2.

Table 4.2 Crude Oil and Natural Gas Cumulative Production, Proved Reserves, and Proved Ultimate Recovery, 1977-2008

Year	Crude Oil and Lease Condensate ¹			Natural Gas (Dry)		
	Cumulative Production	Proved Reserves	Proved Ultimate Recovery	Cumulative Production	Proved Reserves	Proved Ultimate Recovery
Year	Billion Barrels			Trillion Cubic Feet		
1977	118.1	31.8	149.9	514.4	207.4	721.9
1978	121.3	31.4	152.6	533.6	208.0	741.6
1979	124.4	31.2	155.6	553.2	201.0	754.2
1980	127.5	31.3	158.9	572.6	199.0	771.6
1981	130.7	31.0	161.7	591.8	201.7	793.5
1982	133.8	29.5	163.3	609.6	201.5	811.1
1983	137.0	29.3	166.3	625.7	200.2	826.0
1984	140.2	30.0	170.2	643.2	197.5	840.7
1985	143.5	29.9	173.4	659.6	193.4	853.0
1986	146.7	28.3	175.0	675.7	191.6	867.3
1987	149.7	28.7	178.4	692.3	187.2	879.5
1988	152.7	28.2	180.9	709.4	168.0	877.4
1989	155.5	27.9	183.4	726.7	167.1	893.9
1990	158.2	27.6	185.7	744.5	169.3	913.9
1991	160.9	25.9	186.8	762.2	167.1	929.3
1992	163.5	25.0	188.5	780.1	165.0	945.1
1993	166.0	24.1	190.2	798.2	162.4	960.6
1994	168.4	23.6	192.0	817.0	163.8	980.8
1995	170.8	23.5	194.4	835.6	165.1	1,000.7
1996	173.2	23.3	196.5	854.5	166.5	1,020.9
1997	175.6	23.9	199.4	873.4	167.2	1,040.6
1998	177.8	22.4	200.2	892.4	164.0	1,056.4
1999	180.0	23.2	203.1	911.2	167.4	1,078.6
2000	182.1	23.5	205.6	930.4	177.4	1,107.8
2001	184.2	23.8	208.1	950.0	183.5	1,133.5
2002	186.3	24.0	210.4	968.9	186.9	1,155.9
2003	188.4	23.1	211.5	988.0	189.0	1,177.1
2004	190.4	22.6	213.0	1,006.6	192.5	1,199.1
2005	192.3	23.0	215.3	1,024.6	204.4	1,229.0
2006	194.1	22.1	216.3	1,043.1	211.1	1,254.2
2007	196.1	22.8	218.9	1,062.2	237.7	1,299.9
2008	198.0	20.6	218.5	1,082.5	244.7	1,327.1

¹ Lease condensate is the portion of natural gas liquids that is separated from the wellhead gas stream at a lease or field separation facility.

Notes: • Data are at end of year. • See "Proved Reserves, Crude Oil," "Proved Reserves, Lease Condensate," "Proved Reserves, Natural Gas," and "Proved Reserves, Natural Gas Liquids" in Glossary.

Web Pages: See http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html and http://www.eia.gov/oil_gas/natural_gas/info_glance/natural_gas.html for related information.

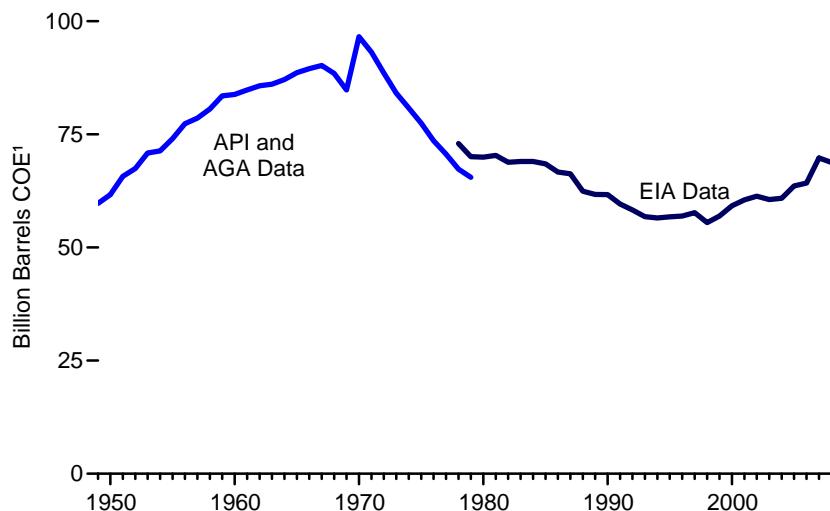
Sources: **Cumulative Production:** Calculated from U.S. Energy Information Administration (EIA),

Petroleum Supply Annual, annual reports and *Natural Gas Annual*, annual reports. **Proved Reserves:**

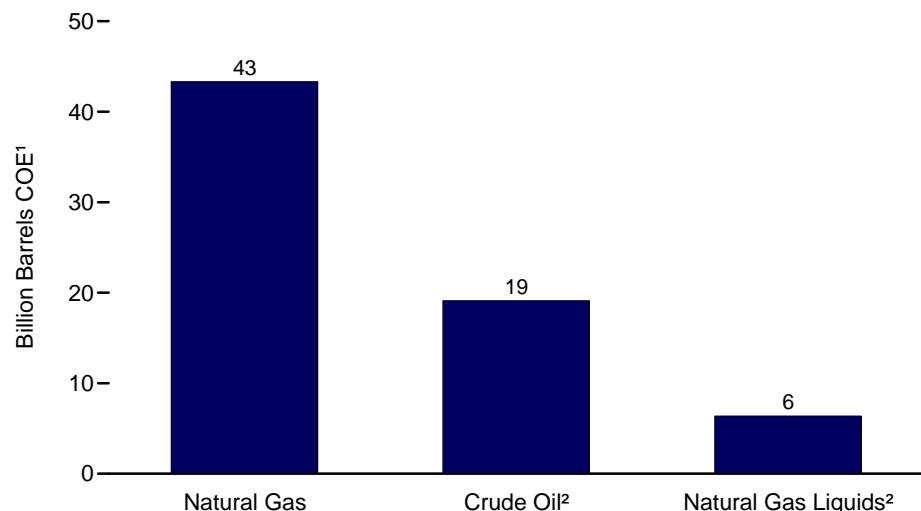
- 1977-2007—EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, annual reports.
- 2008—EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2008* (October 2009) at http://www.eia.gov/oil_gas/natural_gas/publications/crude_oil_natural_gas_reserves/cr.html (Tables 4, 5, and 12). **Proved Ultimate Recovery:** Calculated as the sum of cumulative production and proved reserves.

Figure 4.3 Crude Oil, Natural Gas, and Natural Gas Liquids Proved Reserves

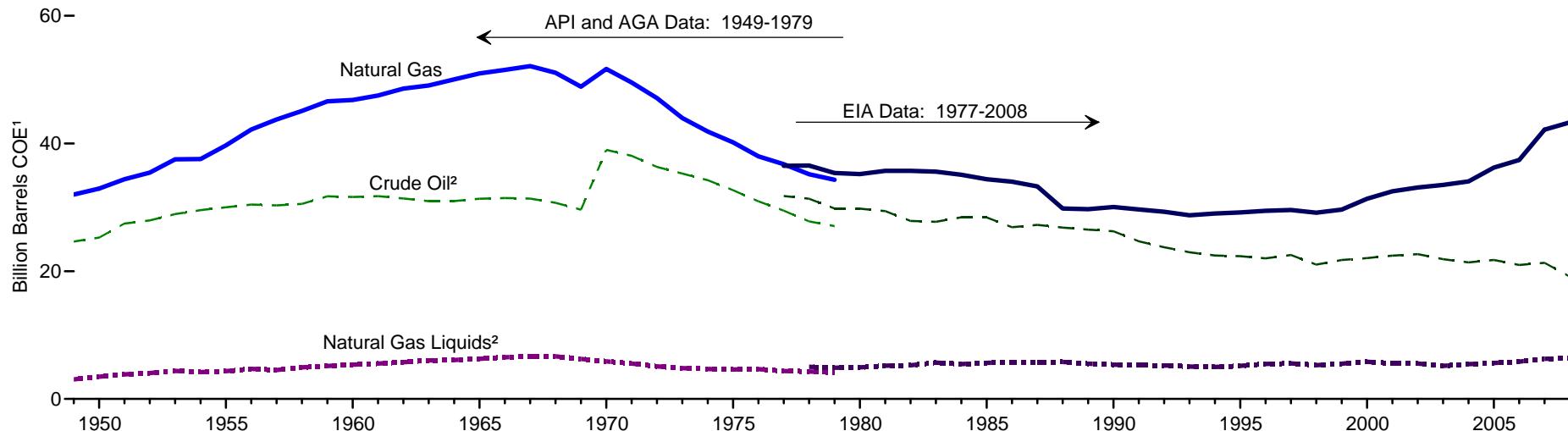
Total, 1949-2008



By Type, 2008



By Type, 1949-2008



¹ COE=crude oil equivalent.

² To the extent that lease condensate is measured or estimated it is included in "Natural Gas Liquids"; otherwise, lease condensate is included in "Crude Oil."

Notes: • Data are at end of year. • API=American Petroleum Institute. AGA=American Gas Association. EIA=U.S. Energy Information Administration.
Source: Table 4.3.

Table 4.3 Crude Oil, Natural Gas, and Natural Gas Liquids Proved Reserves, Selected Years, 1949-2008

Year	Crude Oil ¹		Natural Gas (Dry)		Natural Gas Liquids ¹		Total
	Billion Barrels	Trillion Cubic Feet ²	Billion Barrels COE ³	Billion Barrels	Billion Barrels COE ³	Billion Barrels COE ³	Billion Barrels COE ³
American Petroleum Institute and American Gas Association Data							
1949	24.6	179.4	32.0	3.7	3.1	59.7	
1950	25.3	184.6	32.9	4.3	3.5	61.7	
1955	30.0	222.5	39.7	5.4	4.4	74.1	
1960	31.6	262.3	46.8	6.8	5.4	83.8	
1965	31.4	286.5	51.0	8.0	6.3	88.6	
1970	39.0	290.7	51.7	7.7	5.9	96.6	
1971	38.1	278.8	49.6	7.3	5.5	93.2	
1972	36.3	266.1	47.1	6.8	5.1	88.5	
1973	35.3	250.0	44.0	6.5	4.8	84.1	
1974	34.2	237.1	41.9	6.4	4.7	80.8	
1975	32.7	228.2	40.2	6.3	4.6	77.5	
1976	30.9	216.0	38.0	6.4	4.7	73.6	
1977	29.5	208.9	36.8	6.0	4.4	70.6	
1978	27.8	200.3	35.2	5.9	4.3	67.3	
1979	27.1	194.9	34.3	5.7	4.1	65.5	
U.S. Energy Information Administration Data							
1977	31.8	207.4	36.5	NA	NA	NA	
1978	31.4	208.0	36.5	6.8	5.0	73.0	
1979	29.8	201.0	35.4	6.6	4.9	70.1	
1980	29.8	199.0	35.2	6.7	5.0	70.0	
1981	29.4	201.7	35.7	7.1	5.2	70.4	
1982	27.9	201.5	35.7	7.2	5.3	68.8	
1983	27.7	200.2	35.6	7.9	5.7	69.0	
1984	28.4	197.5	35.1	7.6	5.5	69.0	
1985	28.4	193.4	34.4	7.9	5.6	68.5	
1986	26.9	191.6	34.0	8.2	5.8	66.7	
1987	27.3	187.2	33.3	8.1	5.8	66.3	
1988	26.8	168.0	29.8	8.2	5.8	62.4	
1989	26.5	167.1	29.7	7.8	5.5	61.7	
1990	26.3	169.3	30.0	7.6	5.4	61.7	
1991	24.7	167.1	29.7	7.5	5.3	59.6	
1992	23.7	165.0	29.3	7.5	5.2	58.3	
1993	23.0	162.4	28.8	7.2	5.1	56.8	
1994	22.5	163.8	29.0	7.2	5.0	56.5	
1995	22.4	165.1	29.2	7.4	5.2	56.8	
1996	22.0	166.5	29.4	7.8	5.5	56.9	
1997	22.5	167.2	29.6	8.0	5.6	57.7	
1998	21.0	164.0	29.2	7.5	5.3	55.5	
1999	21.8	167.4	29.6	7.9	5.5	56.9	
2000	22.0	177.4	31.4	8.3	5.8	59.2	
2001	22.4	183.5	32.5	8.0	5.6	60.5	
2002	22.7	186.9	33.1	8.0	5.6	61.3	
2003	21.9	189.0	R33.5	7.5	5.2	R60.6	
2004	21.4	192.5	34.1	7.9	5.5	60.9	
2005	21.8	204.4	R36.2	8.2	5.6	63.6	
2006	21.0	211.1	37.4	8.5	5.8	64.2	
2007	21.3	237.7	R42.2	9.1	6.3	R69.8	
2008	19.1	244.7	43.3	9.3	6.4	68.8	

¹ To the extent that lease condensate is measured or estimated it is included in "Natural Gas Liquids"; otherwise, lease condensate is included in "Crude Oil."

² The American Gas Association estimates of natural gas proved reserves include volumes of natural gas held in underground storage. In 1979, this volume amounted to 4.9 trillion cubic feet. U.S. Energy Information Administration (EIA) data do not include natural gas in underground storage.

³ Natural gas is converted to crude oil equivalent (COE) by multiplying by the natural gas dry production approximate heat content (see Table A4) and then dividing by the crude oil production approximate heat content (see Table A2). The lease condensate portion of natural gas liquids is converted to COE by multiplying by the lease condensate production approximate heat content (5.5 million Btu per barrel) and then dividing by the crude oil production approximate heat content. Other natural gas liquids are converted to COE by multiplying by the natural gas plant liquids production approximate heat content (see Table A2) and then dividing by the crude oil production approximate heat content.

R=Revised. NA=Not available.

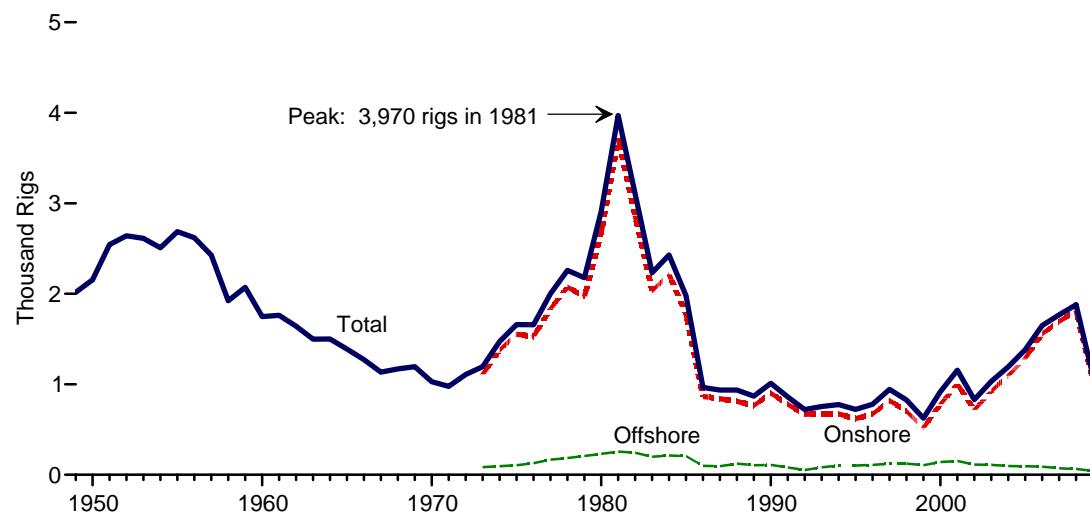
Notes: • Data are at end of year. • See "Proved Reserves, Crude Oil," "Proved Reserves, Natural Gas," and "Proved Reserves, Natural Gas Liquids" in Glossary.

Web Pages: • For all data beginning in 1949, see <http://www.eia.gov/emeu/aer/resource.html>. • For related information, see http://www.eia.gov/oil_gas/petroleum/info_glossary/petroleum.html.

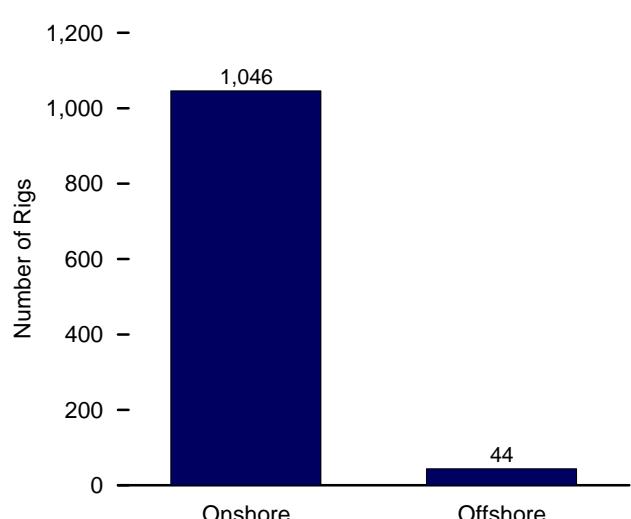
Sources: **American Petroleum Institute and American Gas Association Data:** American Petroleum Institute, American Gas Association, and Canadian Petroleum Association (published jointly), *Reserves of Crude Oil, Natural Gas Liquids and Natural Gas in the United States and Canada as of December 31, 1979*, Volume 34 (June 1980). **U.S. Energy Information Administration Data:** • 1977-1997—EIA, U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, annual reports. • 1998 forward—EIA, U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 2008 Annual Report (October 2009), Table 1.

Figure 4.4 Crude Oil and Natural Gas Rotary Rigs in Operation

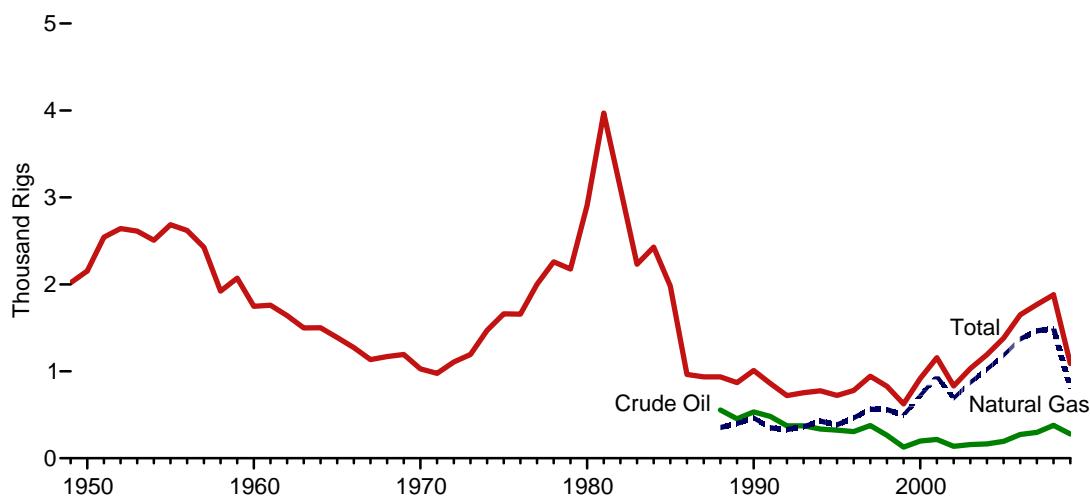
By Site, 1949-2009



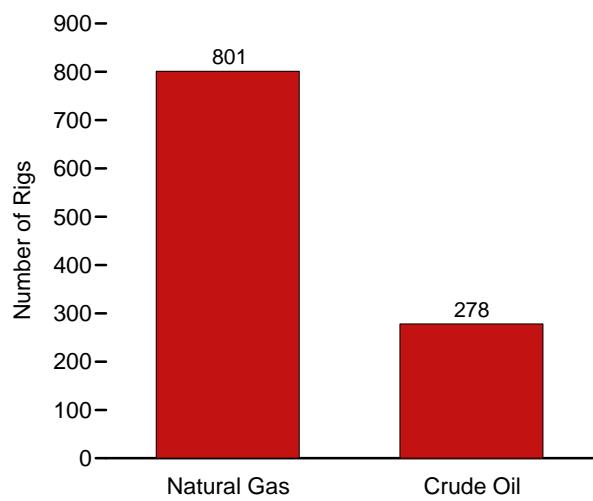
By Site, 2009



By Type, 1949-2009



By Type¹, 2009



¹ Rigs drilling for miscellaneous purposes, such as service wells, injection wells, and stratigraphic tests, are not shown.

Source: Table 4.4.

Table 4.4 Crude Oil and Natural Gas Rotary Rigs in Operation, Selected Years, 1949-2009
 (Number of Rigs)

Year	By Site		By Type		Total ¹
	Onshore	Offshore	Crude Oil	Natural Gas	
1949	NA	NA	NA	NA	2,017
1950	NA	NA	NA	NA	2,154
1955	NA	NA	NA	NA	2,686
1960	NA	NA	NA	NA	1,748
1965	NA	NA	NA	NA	1,388
1970	NA	NA	NA	NA	1,028
1971	NA	NA	NA	NA	976
1972	NA	NA	NA	NA	1,107
1973	1,110	84	NA	NA	1,194
1974	1,378	94	NA	NA	1,472
1975	1,554	106	NA	NA	1,660
1976	1,529	129	NA	NA	1,658
1977	1,834	167	NA	NA	2,001
1978	2,074	185	NA	NA	2,259
1979	1,970	207	NA	NA	2,177
1980	2,678	231	NA	NA	2,909
1981	3,714	256	NA	NA	3,970
1982	2,862	243	NA	NA	3,105
1983	2,033	199	NA	NA	2,232
1984	2,215	213	NA	NA	2,428
1985	1,774	206	NA	NA	1,980
1986	865	99	NA	NA	964
1987	841	95	NA	NA	936
1988	813	123	554	354	936
1989	764	105	453	401	869
1990	902	108	532	464	1,010
1991	779	81	482	351	860
1992	669	52	373	331	721
1993	672	82	373	364	754
1994	673	102	335	427	775
1995	622	101	323	385	723
1996	671	108	306	464	779
1997	821	122	376	564	943
1998	703	123	264	560	827
1999	519	106	128	496	625
2000	778	140	197	720	918
2001	1,003	153	217	939	1,156
2002	717	113	137	691	830
2003	924	108	157	872	1,032
2004	1,095	97	165	1,025	1,192
2005	1,287	94	194	1,184	1,381
2006	1,559	90	274	1,372	1,649
2007	1,695	72	297	1,466	1,768
2008	1,814	65	379	1,491	1,879
2009	1,046	44	278	801	1,089

¹ Sum of rigs drilling for crude oil, rigs drilling for natural gas, and other rigs (not shown) drilling for miscellaneous purposes, such as service wells, injection wells, and stratigraphic tests.

NA=Not available.

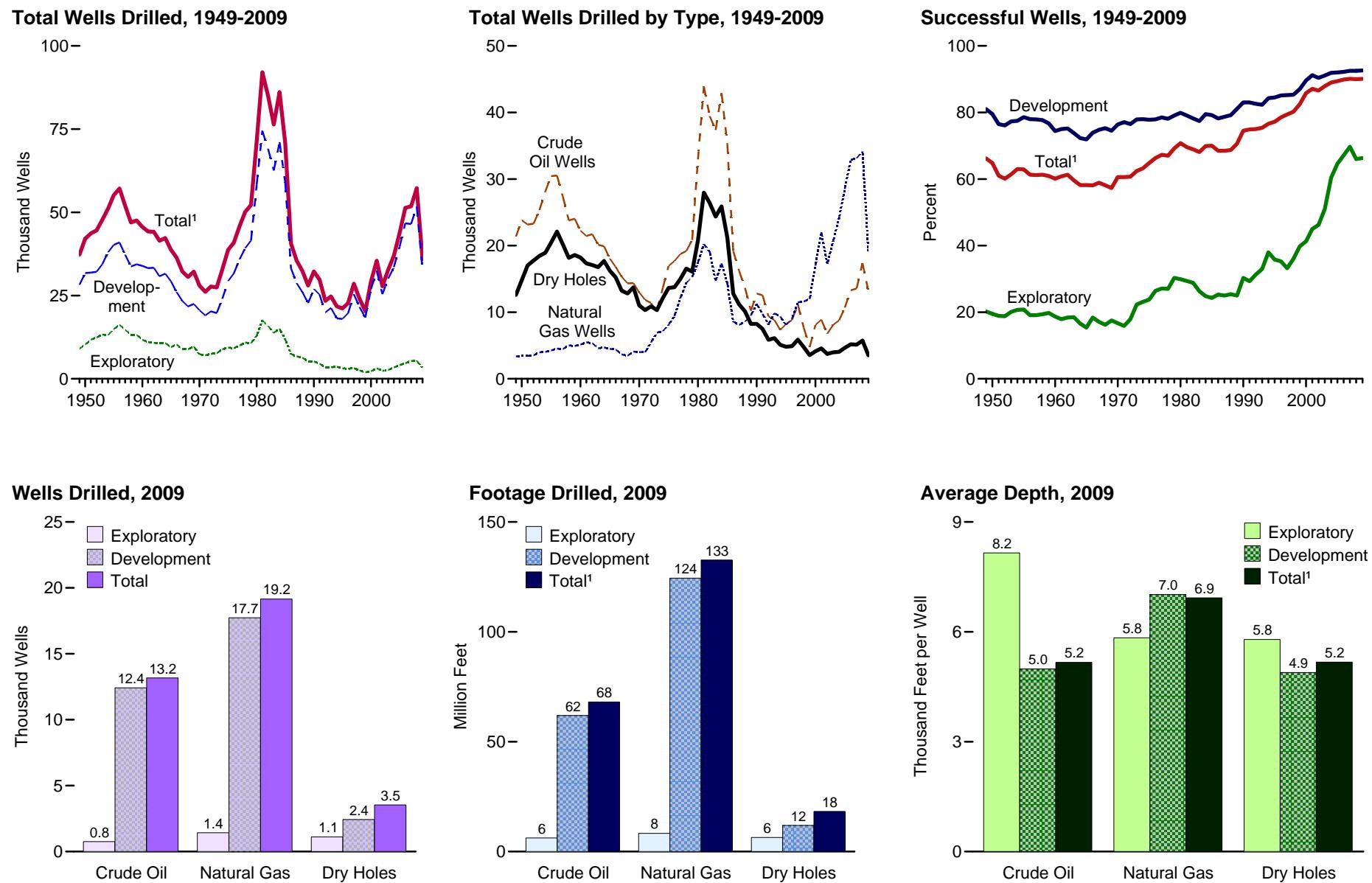
Notes: • Data are not for the exact calendar year but are an average for the 52 or 53 consecutive whole

weeks that most nearly coincide with the calendar year. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Web Page: For all data beginning in 1949, see <http://www.eia.gov/emeu/aer/resource.html>.

Source: Baker Hughes, Inc., Houston, Texas, *Rotary Rigs Running—By State*.

Figure 4.5 Crude Oil and Natural Gas Exploratory and Development Wells



¹ Data are for exploratory and development wells combined.

Sources: Tables 4.5–4.7.

Table 4.5 Crude Oil and Natural Gas Exploratory and Development Wells, Selected Years, 1949-2009

Year	Wells Drilled				Successful Wells	Footage Drilled ¹				Average Depth			
	Crude Oil ²	Natural Gas ³	Dry Holes ⁴	Total		Crude Oil ²	Natural Gas ³	Dry Holes ⁴	Total	Crude Oil ²	Natural Gas ³	Dry Holes ⁴	Total
Year	Number				Percent	Thousand Feet				Feet per Well			
1949	21,352	3,363	12,597	37,312	66.2	79,428	12,437	43,754	135,619	3,720	3,698	3,473	3,635
1950	23,812	3,439	14,799	42,050	64.8	92,695	13,685	50,977	157,358	3,893	3,979	3,445	3,742
1955	30,432	4,266	20,452	55,150	62.9	121,148	19,930	85,103	226,182	3,981	4,672	4,161	4,101
1960	22,258	5,149	18,212	45,619	60.1	86,568	28,246	77,361	192,176	3,889	5,486	4,248	4,213
1965	18,065	4,482	16,226	38,773	58.2	73,322	24,931	76,629	174,882	4,059	5,562	4,723	4,510
1970	12,968	4,011	11,031	28,010	60.6	56,859	23,623	58,074	138,556	4,385	5,860	5,265	4,943
1971	11,853	3,971	10,309	26,133	60.6	49,109	23,460	54,685	127,253	4,126	5,890	5,305	4,858
1972	11,378	5,440	10,891	27,709	60.7	49,269	30,006	58,556	137,831	4,330	5,516	5,377	4,974
1973	10,167	6,933	10,320	27,420	62.4	44,416	38,045	55,761	138,223	4,369	5,488	5,403	5,041
1974	13,647	7,138	12,116	32,901	63.2	52,025	38,449	62,899	153,374	3,812	5,387	5,191	4,662
1975	16,948	8,127	13,646	38,721	64.8	66,819	44,454	69,220	180,494	3,943	5,470	5,073	4,661
1976	17,688	9,409	13,758	40,855	66.3	68,892	49,113	68,977	186,982	3,895	5,220	5,014	4,577
1977	18,745	12,122	14,985	45,852	67.3	75,451	63,686	76,728	215,866	4,025	5,254	5,120	4,708
1978	19,181	14,413	16,551	50,145	67.0	77,041	75,841	85,788	238,669	4,017	5,262	5,183	4,760
1979	20,851	15,254	16,099	52,204	69.2	82,688	80,468	81,642	244,798	3,966	5,275	5,071	4,689
1980	32,959	17,461	20,785	71,205	70.8	125,262	92,106	99,575	316,943	3,801	5,275	4,791	4,451
1981	43,887	20,250	27,953	92,090	69.6	172,167	108,353	134,934	415,454	3,923	5,351	4,827	4,511
1982	39,459	19,076	26,379	84,914	68.9	149,674	107,149	123,746	380,569	3,793	5,617	4,691	4,482
1983	37,366	14,684	24,355	76,405	68.1	136,849	78,108	105,222	320,179	3,662	5,319	4,320	4,191
1984	42,906	17,338	25,884	86,128	69.9	162,653	91,480	119,860	373,993	3,791	5,276	4,631	4,342
1985	35,261	14,324	21,211	70,796	70.0	137,728	76,293	100,388	314,409	3,906	5,326	4,733	4,441
1986	19,213	8,599	12,799	40,611	68.5	76,825	45,039	60,961	182,825	3,999	5,238	4,763	4,502
1987	16,210	8,096	11,167	35,473	68.5	66,358	42,584	53,588	162,530	4,094	5,260	4,799	4,582
1988	13,646	8,578	10,119	32,343	68.7	58,639	45,363	52,517	156,519	4,297	5,288	5,190	4,839
1989	10,230	9,522	8,236	27,988	70.6	43,266	49,081	42,099	134,446	4,229	5,154	5,112	4,804
1990	R12,800	R11,227	R8,237	R32,264	R74.5	R56,675	R57,002	R42,527	R156,204	R4,427	R5,077	R5,162	R4,841
1991	R12,542	R9,768	R7,476	R29,786	R74.9	R56,329	R50,971	R37,839	R145,139	R4,491	R5,218	R5,061	R4,872
1992	R9,379	R8,149	R5,857	R23,385	R75.0	R45,973	R44,748	R29,440	R120,161	R4,901	R5,491	R5,026	R5,138
1993	R8,828	R9,829	R6,093	R24,750	R75.4	R44,410	R58,322	R31,110	R133,842	R5,030	R5,933	R5,105	R5,407
1994	R7,334	R9,358	R5,092	R21,784	R76.6	R38,803	R58,360	R27,806	R124,969	R5,290	R6,236	R5,460	R5,736
1995	R8,230	R8,081	R4,813	R21,124	R77.2	R41,249	R49,816	R26,394	R117,459	R5,012	R6,164	R5,483	R5,560
1996	R8,819	R9,015	R4,890	R22,724	R78.5	R42,566	R56,205	R27,875	R126,646	R4,826	R6,234	R5,700	R5,573
1997	R11,189	R11,494	R5,874	R28,557	R79.4	R56,446	R71,555	R33,753	R161,754	R5,044	R6,225	R5,746	R5,664
1998	R7,659	R11,613	R4,763	R24,035	R80.2	R38,658	R70,281	R28,594	R137,533	R5,047	R6,051	R6,003	R5,722
1999	R4,759	R11,979	R3,554	R20,292	R82.5	R21,983	R60,234	R20,670	R102,887	R4,619	R5,028	R5,815	R5,070
2000	R8,089	R16,986	R4,134	R29,209	R85.8	R36,865	R83,502	R23,987	R144,354	R4,557	R4,915	R5,802	R4,942
2001	R8,880	R22,033	R4,564	R35,477	R87.1	R43,339	R110,648	R26,148	R180,135	R4,880	R5,021	R5,729	R5,077
2002	R6,762	R17,297	R3,728	R27,787	R86.6	R30,956	R93,055	R21,121	R145,132	R4,577	R5,379	R5,665	R5,223
2003	R8,104	R20,685	R3,970	R32,759	R87.9	R38,751	R116,010	R22,728	R177,489	R4,781	R5,608	R5,724	R5,418
2004	R8,764	R24,112	R4,053	R36,929	R89.0	R42,263	R138,464	R23,662	R204,389	R4,822	R5,742	R5,838	R5,534
2005 ^E	R10,696	R28,500	R4,656	R43,852	R89.4	R51,470	R164,033	R25,096	R240,599	R4,812	R5,755	R5,390	R5,486
2006 ^E	R13,289	R32,878	R5,183	R51,350	R89.9	R63,620	R192,921	R27,799	R284,340	R4,787	R5,867	R5,363	R5,537
2007 ^E	R13,564	R33,132	R5,121	R51,817	R90.1	R67,009	R213,241	R28,566	R308,816	R4,940	R6,436	5,578	R5,959
2008 ^E	R17,370	R34,118	R5,726	R57,214	R90.0	R89,815	R235,330	R29,708	R354,853	R5,170	R6,897	R5,188	R6,202
2009 ^E	13,175	19,153	3,537	35,865	90.1	68,090	132,713	18,296	219,099	5,168	6,929	5,172	6,108

¹ See "Footage Drilled" in Glossary.

² See "Crude Oil Well" in Glossary.

³ See "Natural Gas Well" in Glossary.

⁴ See "Dry Hole" in Glossary.

R=Revised. E=Estimate.

Notes: • Data are for exploratory and development wells combined; see Table 4.6 for exploratory wells only, and Table 4.7 for development wells only. • Service wells, stratigraphic tests, and core tests are excluded. • For 1949-1959, data represent wells completed in a given year. For 1960-1969, data are for well completion reports received by the American Petroleum Institute during the reporting year. For 1970 forward, the data represent wells completed in a given year. The as-received well completion data for recent years are incomplete due to delays in the reporting of wells drilled. The U.S. Energy Information Administration (EIA) therefore statistically imputes the missing data. • Revisions for 1990-2008 are due to

updates through January 2010 in the source files, including the addition of data for new wells that are classified as horizontal or lateral, which were previously not included in this table. • Totals may not equal sum of components due to independent rounding. Average depth may not equal average of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.gov/emeu/aer/resource.html>.

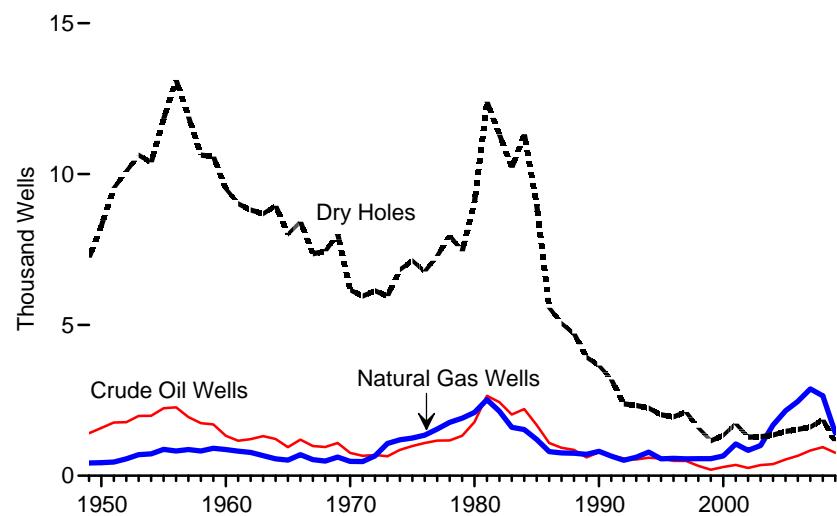
• For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

Sources: • 1949-1965—Gulf Publishing Company, *World Oil*, "Forecast-Review" issue.

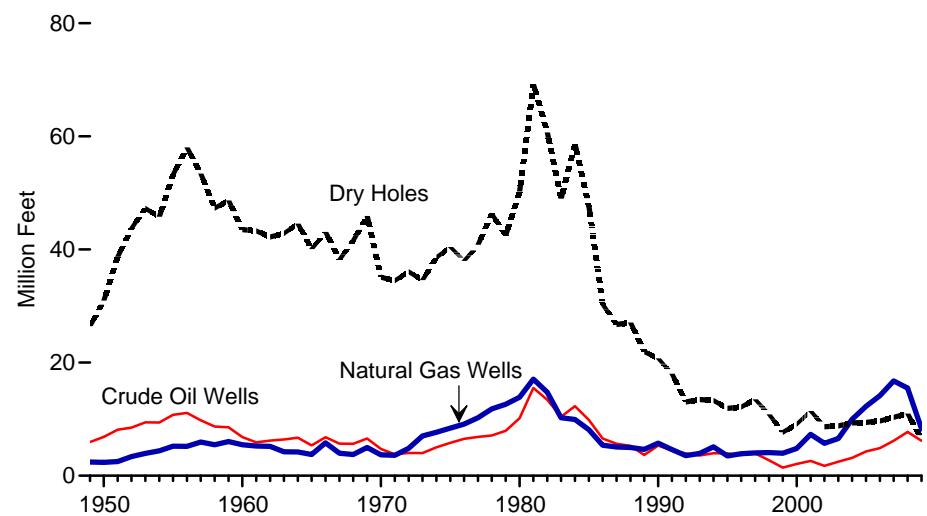
• 1966-1969—American Petroleum Institute (API), *Quarterly Review of Drilling Statistics for the United States*, annual summaries and monthly reports. • 1970-1989—EIA computations based on well reports submitted to the API. • 1990 forward—EIA computations based on well reports submitted to IHS, Inc., Denver, CO. For current data see the EIA, *Monthly Energy Review*, Table 5.2.

Figure 4.6 Crude Oil and Natural Gas Exploratory Wells, 1949-2009

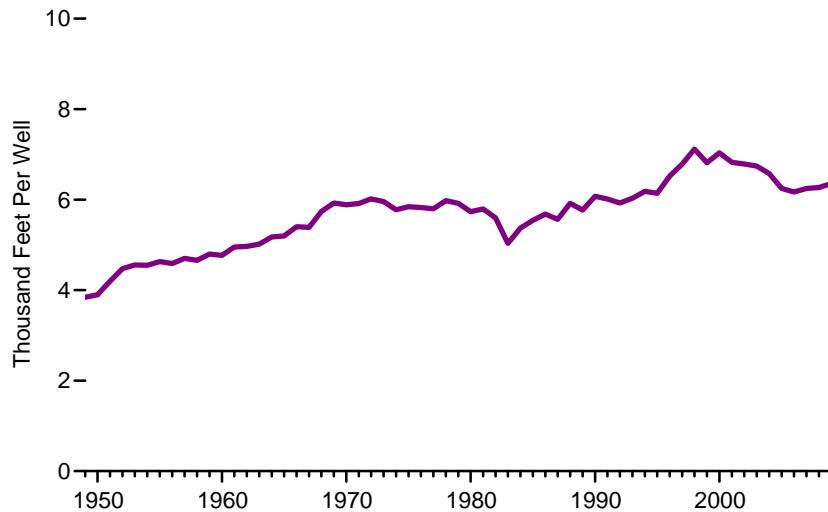
Exploratory Wells Drilled by Well Type



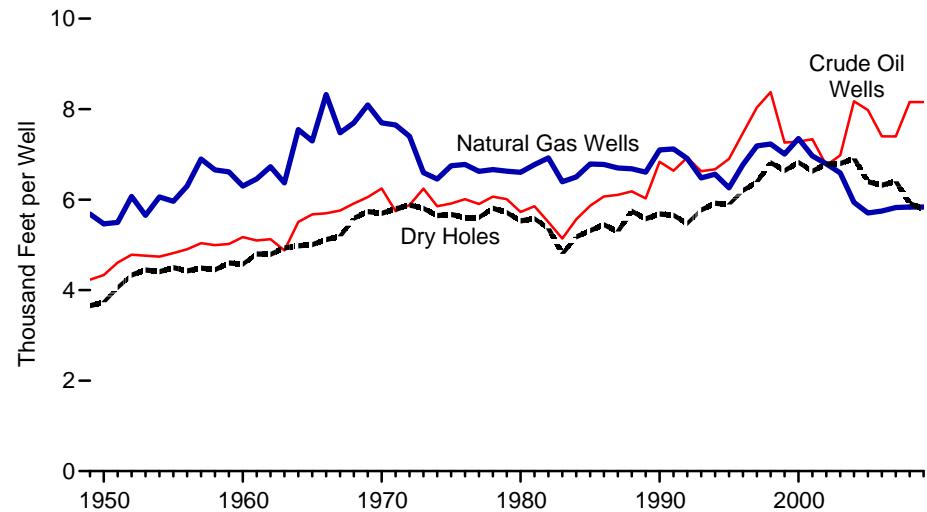
Exploratory Footage Drilled by Well Type



Exploratory Wells Average Depth, All Wells



Exploratory Wells Average Depth by Well Type



Note: These graphs depict exploratory wells only; see Figure 4.5 for all wells and Figure 4.7 for development wells only.

Source: Table 4.6.

Table 4.6 Crude Oil and Natural Gas Exploratory Wells, Selected Years, 1949-2009

Year	Wells Drilled				Successful Wells	Footage Drilled ¹				Average Depth			
	Crude Oil ²	Natural Gas ³	Dry Holes ⁴	Total		Crude Oil ²	Natural Gas ³	Dry Holes ⁴	Total	Crude Oil ²	Natural Gas ³	Dry Holes ⁴	Total
Year	Number				Percent	Thousand Feet				Feet per Well			
1949	1,406	424	7,228	9,058	20.2	5,950	2,409	26,439	34,798	4,232	5,682	3,658	3,842
1950	1,583	431	8,292	10,306	19.5	6,862	2,356	30,957	40,175	4,335	5,466	3,733	3,898
1955	2,236	874	11,832	14,942	20.8	10,774	5,212	53,220	69,206	4,819	5,964	4,498	4,632
1960	1,321	868	9,515	11,704	18.7	6,829	5,466	43,535	55,831	5,170	6,298	4,575	4,770
1965	946	515	8,005	9,466	15.4	5,366	3,757	40,081	49,204	5,672	7,295	5,007	5,198
1970	757	477	6,162	7,396	16.7	4,729	3,678	35,123	43,530	6,247	7,695	5,700	5,885
1971	659	470	5,952	7,081	15.9	3,786	3,610	34,499	41,895	5,745	7,649	5,796	5,915
1972	685	656	6,134	7,475	17.9	4,028	4,847	36,081	44,956	5,880	7,400	5,882	6,015
1973	642	1,067	5,952	7,661	22.3	4,008	7,038	34,571	45,618	6,243	6,596	5,808	5,955
1974	859	1,190	6,833	8,882	23.1	5,029	7,683	38,603	51,315	5,855	6,456	5,649	5,777
1975	982	1,248	7,129	9,359	23.8	5,806	8,422	40,448	54,677	5,913	6,748	5,674	5,842
1976	1,086	1,346	6,772	9,204	26.4	6,527	9,121	37,969	53,617	6,010	6,777	5,607	5,825
1977	1,164	1,548	7,283	9,995	27.1	6,870	10,255	40,823	57,949	5,902	6,625	5,605	5,798
1978	1,171	1,771	7,965	10,907	27.0	7,105	11,798	46,295	65,197	6,067	6,662	5,812	5,978
1979	1,321	1,907	7,437	10,665	30.3	7,941	12,643	42,512	63,096	6,011	6,630	5,716	5,916
1980	1,777	2,099	9,081	12,957	29.9	10,177	13,862	50,249	74,288	5,727	6,604	5,533	5,733
1981	2,651	2,522	12,400	17,573	29.4	15,515	17,079	69,214	101,808	5,853	6,772	5,582	5,793
1982	2,437	2,133	11,307	15,877	28.8	13,413	14,763	60,680	88,856	5,504	6,921	5,367	5,597
1983	2,030	1,605	10,206	13,841	26.3	10,437	10,264	48,989	69,690	5,141	6,395	4,800	5,035
1984	2,209	1,528	11,321	15,058	24.8	12,294	9,935	58,624	80,853	5,565	6,502	5,178	5,369
1985	1,680	1,200	8,954	11,834	24.3	9,854	8,144	47,604	65,602	5,865	6,787	5,317	5,544
1986	1,084	797	5,567	7,448	25.3	6,579	5,401	30,325	42,305	6,069	6,777	5,447	5,680
1987	926	756	5,052	6,734	25.0	5,652	5,064	26,746	37,462	6,104	6,698	5,294	5,563
1988	855	747	4,711	6,313	25.4	5,286	4,992	27,079	37,357	6,182	6,683	5,748	5,917
1989	607	706	3,934	5,247	25.0	3,659	4,664	21,947	30,270	6,028	6,606	5,579	5,769
1990	778	R811	R3,651	5,240	30.3	R5,319	R5,757	R20,756	R31,832	R6,836	R7,098	5,685	R6,074
1991	673	648	R3,190	R4,511	29.3	4,469	4,615	R18,046	R27,130	R6,640	R7,121	R5,657	R6,014
1992	571	513	R2,383	R3,467	31.3	3,957	3,543	R13,048	20,548	R6,929	R6,906	R5,475	R5,926
1993	539	R610	R2,333	R3,482	33.0	3,572	R3,953	R13,471	R20,996	6,627	R6,480	R5,774	R6,029
1994	595	780	R2,247	R3,622	38.0	R3,969	R5,119	R13,306	R22,394	R6,670	R6,562	R5,921	R6,182
1995	570	557	2,023	3,150	35.8	R3,933	R3,488	11,922	R19,343	R6,900	R6,262	5,893	R6,140
1996	489	576	R1,956	R3,021	35.3	R3,654	3,901	R12,136	R19,691	R7,472	R6,772	R6,204	R6,518
1997	491	561	R2,113	R3,165	R33.2	3,946	4,032	13,499	R21,477	R8,036	R7,187	R6,388	R6,785
1998	327	566	R1,590	R2,483	36.0	R2,739	4,092	R10,843	R17,674	R8,376	R7,229	R6,819	R7,118
1999	R197	R567	R1,157	R1,921	R39.8	R1,431	R3,973	R7,688	R13,092	R7,263	R7,007	R6,644	R6,815
2000	R287	R655	R1,337	R2,279	R41.3	R2,090	R4,814	R9,129	R16,033	R7,282	R7,349	R6,827	R7,035
2001	R357	R1,052	R1,724	R3,133	45.0	R2,619	R7,326	R11,431	R21,376	R7,336	R6,963	R6,630	R6,822
2002	257	843	R1,279	R2,379	R46.2	R1,737	R5,726	R8,681	R16,144	R6,758	R6,792	R6,787	R6,786
2003	353	R999	R1,298	R2,650	R51.0	R2,464	R6,582	R8,825	R17,871	R6,980	R6,588	R6,798	R6,743
2004	R385	R1,677	R1,352	R3,414	R60.4	R3,147	R9,960	R9,346	R22,453	R8,174	R5,939	R6,912	R6,576
2005 ^E	R536	R2,149	R1,474	R4,159	R64.6	R4,277	R12,262	R9,434	R25,973	R7,979	R5,705	R6,400	R6,245
2006 ^E	R660	R2,464	R1,534	R4,658	R67.1	R4,883	R14,165	R9,696	R28,744	R7,398	R5,748	R6,320	R6,170
2007 ^E	R834	R2,878	R1,613	R5,325	R69.7	R6,169	R16,771	R10,330	R33,270	R7,396	R5,827	R6,404	6,247
2008 ^E	R947	R2,652	R1,858	R5,457	R66.0	R7,724	R15,476	R10,994	R34,194	R8,156	R5,835	R5,917	R6,266
2009 ^E	759	1,423	1,111	3,293	66.3	6,190	8,304	6,435	20,929	8,155	5,835	5,792	6,355

¹ See "Footage Drilled" in Glossary.

² See "Crude Oil Well" in Glossary.

³ See "Natural Gas Well" in Glossary.

⁴ See "Dry Hole" in Glossary.

R=Revised. E=Estimate.

Notes: • Data are for exploratory wells only; see Table 4.5 for exploratory and development wells combined, and Table 4.7 for development wells only. • For 1949-1959, data represent wells completed in a given year. For 1960-1969, data are for well completion reports received by the American Petroleum Institute (API) during the reporting year. For 1970 forward, the data represent wells completed in a given year. The as-received well completion data for recent years are incomplete due to delays in the reporting of wells drilled. The U.S. Energy Information Administration (EIA) therefore statistically imputes the missing

data. • Revisions for 1990-2008 are due to updates through January 2010 in the source files, including the addition of data for new wells that are classified as horizontal or lateral, which were previously not included in this table. • Totals may not equal sum of components due to independent rounding. Average depth may not equal average of components due to independent rounding.

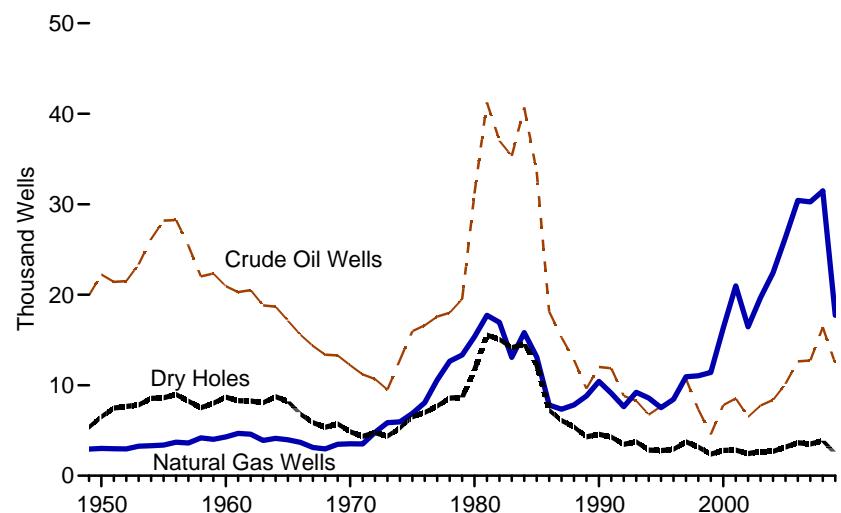
Web Pages: • For all data beginning in 1949, see <http://www.eia.gov/emeu/aer/resource.html>.

• For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

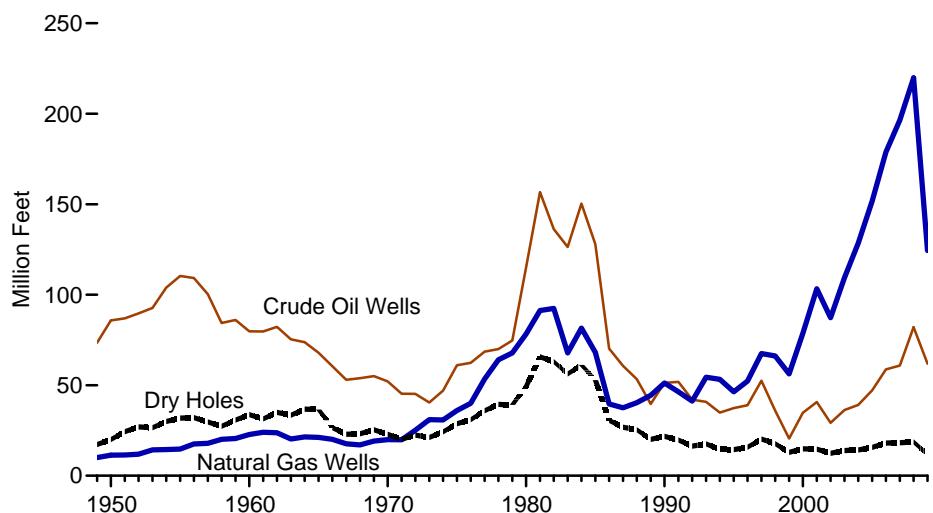
Sources: • 1949-1965—Gulf Publishing Company, *World Oil*, "Forecast-Review" issue. • 1966-1969—American Petroleum Institute (API), *Quarterly Review of Drilling Statistics for the United States*, annual summaries and monthly reports. • 1970-1989—EIA computations based on well reports submitted to the API. • 1990 forward—EIA computations based on well reports submitted to IHS, Inc., Denver, CO. For current data see the EIA, *Monthly Energy Review*, Table 5.2.

Figure 4.7 Crude Oil and Natural Gas Development Wells, 1949-2009

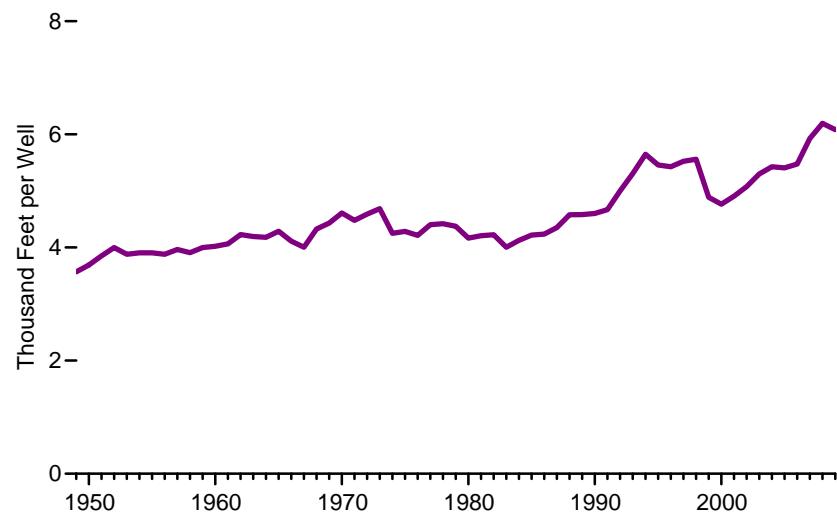
Development Wells Drilled by Well Type



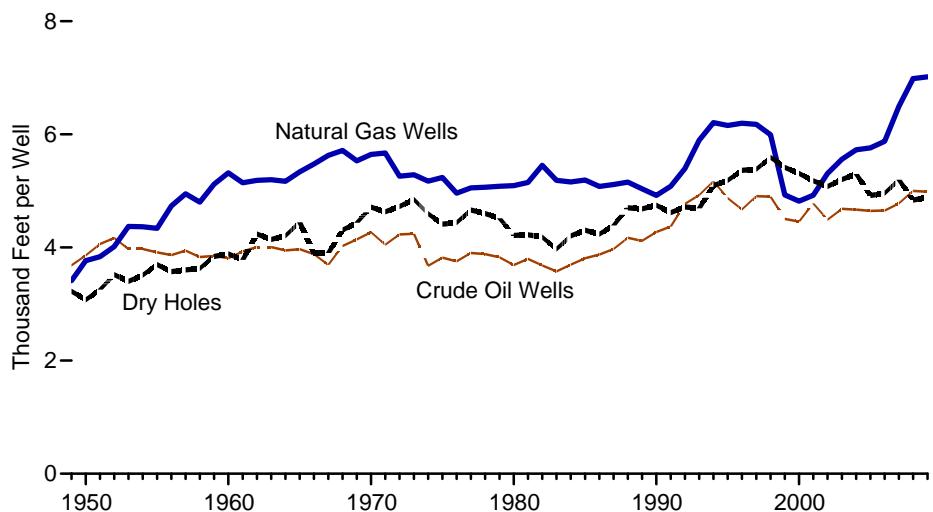
Development Footage Drilled by Well Type



Development Wells Average Depth, All Wells



Development Wells Average Depth by Well Type



Note: These graphs depict development wells only; see Figure 4.5 for all wells and Figure 4.6 for exploratory wells only.

Source: Table 4.7.

Table 4.7 Crude Oil and Natural Gas Development Wells, Selected Years, 1949-2009

Year	Wells Drilled				Successful Wells	Footage Drilled ¹				Average Depth			
	Crude Oil ²	Natural Gas ³	Dry Holes ⁴	Total		Crude Oil ²	Natural Gas ³	Dry Holes ⁴	Total	Crude Oil ²	Natural Gas ³	Dry Holes ⁴	Total
Year	Number				Percent	Thousand Feet				Feet per Well			
1949	19,946	2,939	5,369	28,254	81.0	73,478	10,028	17,315	100,821	3,684	3,412	3,225	3,568
1950	22,229	3,008	6,507	31,744	79.5	85,833	11,329	20,020	117,183	3,861	3,766	3,077	3,691
1955	28,196	3,392	8,620	40,208	78.6	110,374	14,718	31,883	156,976	3,915	4,339	3,699	3,904
1960	20,937	4,281	8,697	33,915	74.4	79,739	22,780	33,826	136,345	3,809	5,321	3,889	4,020
1965	17,119	3,967	8,221	29,307	71.9	67,956	21,174	36,548	125,678	3,970	5,337	4,446	4,288
1970	12,211	3,534	4,869	20,614	76.4	52,130	19,945	22,951	95,026	4,269	5,644	4,714	4,610
1971	11,194	3,501	4,357	19,052	77.1	45,323	19,850	20,186	85,358	4,049	5,670	4,633	4,480
1972	10,693	4,784	4,757	20,234	76.5	45,241	25,159	22,475	92,875	4,231	5,259	4,725	4,590
1973	9,525	5,866	4,368	19,759	77.9	40,408	31,007	21,190	92,605	4,242	5,286	4,851	4,687
1974	12,788	5,948	5,283	24,019	78.0	46,996	30,766	24,296	102,059	3,675	5,173	4,599	4,249
1975	15,966	6,879	6,517	29,362	77.8	61,013	36,032	28,772	125,817	3,821	5,238	4,415	4,285
1976	16,602	8,063	6,986	31,651	77.9	62,365	39,992	31,008	133,365	3,756	4,960	4,439	4,214
1977	17,581	10,574	7,702	35,857	78.5	68,581	53,431	35,905	157,917	3,901	5,053	4,662	4,404
1978	18,010	12,642	8,586	39,238	78.1	69,936	64,043	39,493	173,472	3,883	5,066	4,600	4,421
1979	19,530	13,347	8,662	41,539	79.1	74,747	67,825	39,130	181,702	3,827	5,082	4,517	4,374
1980	31,182	15,362	11,704	58,248	79.9	115,085	78,244	49,326	242,655	3,691	5,093	4,214	4,166
1981	41,236	17,728	15,553	74,517	79.1	156,652	91,274	65,720	313,646	3,799	5,149	4,226	4,209
1982	37,022	16,943	15,072	69,037	78.2	136,261	92,386	63,066	291,713	3,681	5,453	4,184	4,225
1983	35,336	13,079	14,149	62,564	77.4	126,412	67,844	56,233	250,489	3,577	5,187	3,974	4,004
1984	40,697	15,810	14,563	71,070	79.5	150,359	81,545	61,236	293,140	3,695	5,158	4,205	4,125
1985	33,581	13,124	12,257	58,962	79.2	127,874	68,149	52,784	248,807	3,808	5,193	4,306	4,220
1986	18,129	7,802	7,232	33,163	78.2	70,246	39,638	30,636	140,520	3,875	5,080	4,236	4,237
1987	15,284	7,340	6,115	28,739	78.7	60,706	37,520	26,842	125,068	3,972	5,112	4,390	4,352
1988	12,791	7,831	5,408	26,030	79.2	53,353	40,371	25,438	119,162	4,171	5,155	4,704	4,578
1989	9,623	8,816	4,302	22,741	81.1	39,607	44,417	20,152	104,176	4,116	5,038	4,684	4,581
1990	R12,022	R10,416	R4,586	R27,024	R83.0	R51,356	R51,245	R21,771	R124,372	R4,272	R4,920	R4,747	R4,602
1991	R11,869	R9,120	R4,286	R25,275	R83.0	R51,860	R46,356	R19,793	R118,009	R4,369	R5,083	R4,618	R4,669
1992	R8,808	R7,636	R3,474	R19,918	R82.6	R42,016	R41,205	R16,392	R99,613	R4,770	R5,396	R4,718	R5,001
1993	R8,289	R9,219	R3,760	R21,268	R82.3	R40,838	R54,369	R17,639	R112,846	R4,927	R5,897	R4,691	R5,306
1994	R6,739	R8,578	R2,845	R18,162	R84.3	R34,834	R53,241	R14,500	R102,575	R5,169	R6,207	R5,097	R5,648
1995	R7,660	R7,524	R2,790	R17,974	R84.5	R37,316	R46,328	R14,472	R98,116	R4,872	R6,157	R5,187	R5,459
1996	R8,330	R8,439	R2,934	R19,703	R85.1	R38,912	R52,304	R15,739	R106,955	R4,671	R6,198	R5,364	R5,428
1997	R10,698	R10,933	R3,761	R25,392	R85.2	R52,500	R67,523	R20,254	R140,277	R4,907	R6,176	R5,385	R5,524
1998	R7,332	R11,047	R3,173	R21,552	R85.3	R35,919	R66,189	R17,751	R119,859	R4,899	R5,992	R5,594	R5,561
1999	R4,562	R11,412	R2,397	R18,371	R87.0	R20,552	R56,261	R12,982	R89,795	R4,505	R4,930	R5,416	R4,888
2000	R7,802	R16,331	R2,797	R26,930	R89.6	R34,775	R78,688	R14,858	R128,321	R4,457	R4,818	R5,312	R4,765
2001	R8,523	R20,981	R2,840	R32,344	R91.2	R40,720	R103,322	R14,717	R158,759	R4,778	R4,925	R5,182	R4,908
2002	R6,505	R16,454	R2,449	R25,408	R90.4	R29,219	R87,329	R12,440	R128,988	R4,492	R5,307	R5,080	R5,077
2003	R7,751	R19,686	R2,672	R30,109	R91.1	R36,287	R109,428	R13,903	R159,618	R4,682	R5,559	R5,203	R5,301
2004	R8,379	R22,435	R2,701	R33,515	R91.9	R39,116	R128,504	R14,316	R181,936	R4,668	R5,728	R5,300	R5,428
2005 ^E	R10,160	R26,351	R3,182	R39,693	R92.0	R47,193	R151,771	R15,662	R214,626	R4,645	R5,760	R4,922	R5,407
2006 ^E	R12,629	R30,414	R3,649	R46,692	R92.2	R58,737	R178,756	R18,103	R255,596	R4,651	R5,877	R4,961	R5,474
2007 ^E	R12,730	R30,254	R3,508	R46,492	R92.5	R60,840	R196,470	R18,236	R275,546	R4,779	R6,494	R5,198	R5,927
2008 ^E	R16,423	R31,466	R3,868	R51,757	R92.5	R82,091	R219,854	R18,714	R320,659	R4,999	R6,987	R4,838	R6,195
2009 ^E	12,416	17,730	2,426	32,572	92.6	61,900	124,409	11,861	198,170	4,986	7,017	4,889	6,084

¹ See "Footage Drilled" in Glossary.

² See "Crude Oil Well" in Glossary.

³ See "Natural Gas Well" in Glossary.

⁴ See "Dry Hole" in Glossary.

R=Revised. E=Estimate.

Notes: • Data are for development wells only; see Table 4.5 for exploratory and development wells combined, and Table 4.6 for exploratory wells only. • Service wells, stratigraphic tests, and core tests are excluded. • For 1949-1959, data represent wells completed in a given year. For 1960-1969, data are for well completion reports received by the American Petroleum Institute during the reporting year. For 1970 forward, the data represent wells completed in a given year. The as-received well completion data for recent years are incomplete due to delays in the reporting of wells drilled. The U.S. Energy Information Administration (EIA) therefore statistically imputes the missing data. • Revisions for 1990-2008 are due to

updates through January 2010 in the source files, including the addition of data for new wells that are classified as horizontal or lateral, which were previously not included in this table. • Totals may not equal sum of components due to independent rounding. Average depth may not equal average of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.gov/emeu/aer/resource.html>.

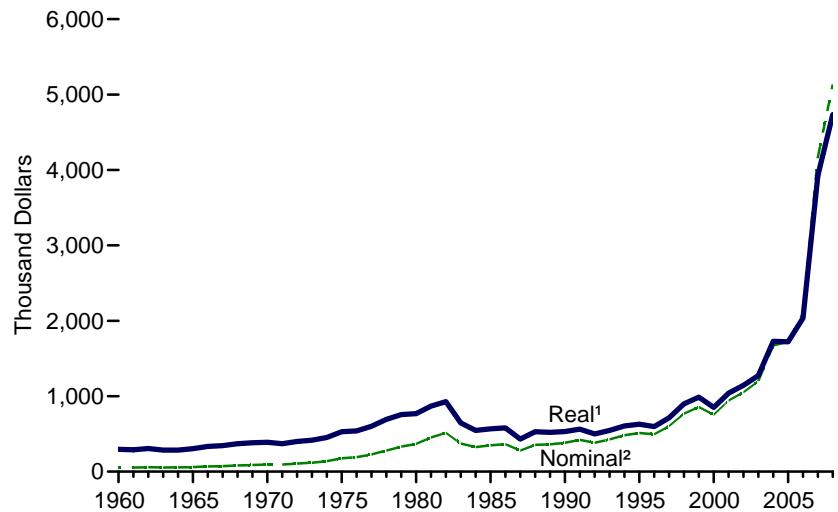
• For related information, see http://www.eia.gov/oil_gas/petroleum/info_glance/petroleum.html.

Sources: • 1949-1965—Gulf Publishing Company, *World Oil*, "Forecast-Review" issue.

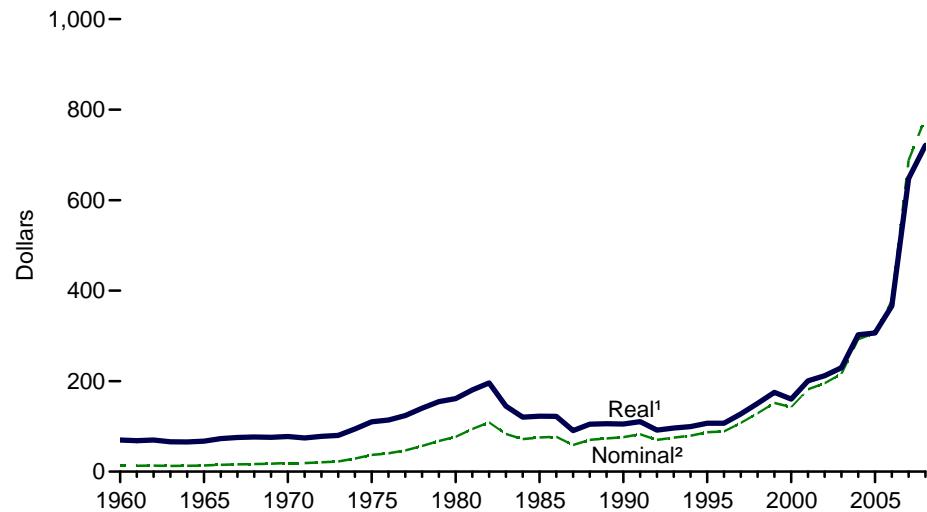
• 1966-1969—American Petroleum Institute (API), *Quarterly Review of Drilling Statistics for the United States*, annual summaries and monthly reports. • 1970-1989—EIA computations based on well reports submitted to the API. • 1990 forward—EIA computations based on well reports submitted to IHS, Inc., Denver, CO. For current data see the EIA, *Monthly Energy Review*, Table 5.2.

Figure 4.8 Costs of Crude Oil and Natural Gas Wells Drilled

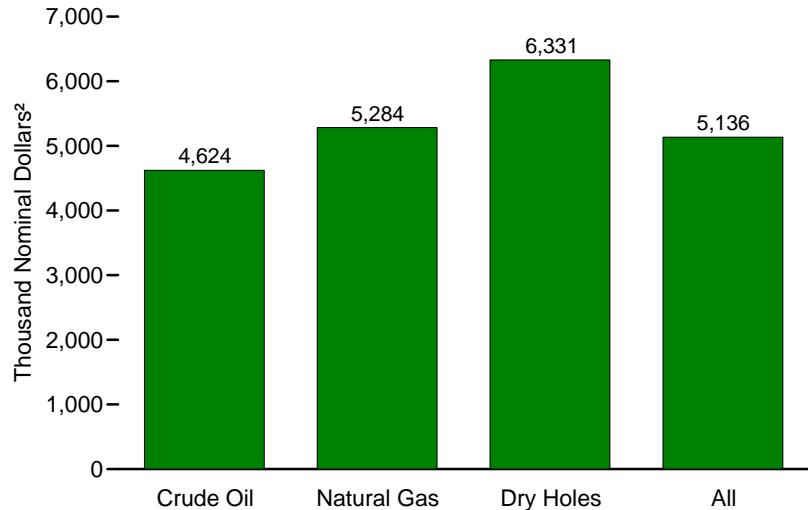
Costs per Well, All Wells, 1960-2008



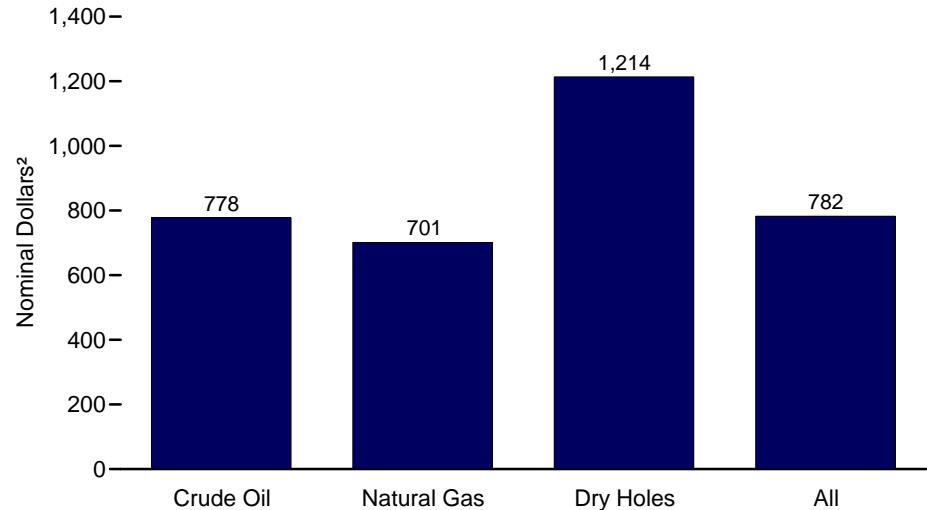
Costs per Foot, All Wells, 1960-2008



Costs per Well by Well Type, 2008



Costs per Foot by Well Type, 2008



¹ In chained (2005) dollars, calculated by using gross domestic product implicit price deflators. See Table D1.

² See "Nominal Dollars" in Glossary.
Source: Table 4.8.

Table 4.8 Costs of Crude Oil and Natural Gas Wells Drilled, 1960-2008

Year	Thousand Dollars per Well					Dollars per Foot				
	Crude Oil ¹	Natural Gas ²	Dry Holes ³	All		Crude Oil ¹	Natural Gas ²	Dry Holes ³	All	
	Nominal ⁴	Nominal ⁴	Nominal ⁴	Nominal ⁴	Real ⁵	Nominal ⁴	Nominal ⁴	Nominal ⁴	Nominal ⁴	Real ⁵
1960	52.2	102.7	44.0	54.9	R295.4	13.22	18.57	10.56	13.01	R69.96
1961	51.3	94.7	45.2	54.5	R289.9	13.11	17.65	10.56	12.85	R68.33
1962	54.2	97.1	50.8	58.6	R307.6	13.41	18.10	11.20	13.31	R69.82
1963	51.8	92.4	48.2	55.0	R285.6	13.20	17.19	10.58	12.69	R65.87
1964	50.6	104.8	48.5	55.8	R285.3	13.12	18.57	10.64	12.86	R65.74
1965	56.6	101.9	53.1	60.6	R304.5	13.94	18.35	11.21	13.44	R67.47
1966	62.2	133.8	56.9	68.4	R333.9	15.04	21.75	12.34	14.95	R72.98
1967	66.6	141.0	61.5	72.9	R345.3	16.61	23.05	12.87	15.97	R75.63
1968	79.1	148.5	66.2	81.5	R370.1	18.63	24.05	12.88	16.83	R76.46
1969	86.5	154.3	70.2	88.6	R383.4	19.28	25.58	13.23	17.56	R76.02
1970	86.7	160.7	80.9	94.9	R390.2	19.29	26.75	15.21	18.84	R77.48
1971	78.4	166.6	86.8	94.7	R370.9	18.41	27.70	16.02	19.03	R74.53
1972	93.5	157.8	94.9	106.4	R399.6	20.77	27.78	17.28	20.76	R77.95
1973	103.8	155.3	105.8	117.2	R416.7	22.54	27.46	19.22	22.50	R80.04
1974	110.2	189.2	141.7	138.7	R452.4	27.82	34.11	26.76	28.93	R94.35
1975	138.6	262.0	177.2	177.8	R529.7	34.17	46.23	33.86	36.99	R110.21
1976	151.1	270.4	190.3	191.6	R539.9	37.35	49.78	36.94	40.46	R114.01
1977	170.0	313.5	230.2	227.2	R601.8	41.16	57.57	43.49	46.81	R124.00
1978	208.0	374.2	281.7	280.0	R692.9	49.72	68.37	52.55	56.63	R140.17
1979	243.1	443.1	339.6	331.4	R757.2	58.29	80.66	64.60	67.70	R154.70
1980	272.1	536.4	376.5	367.7	R770.0	66.36	95.16	73.70	77.02	R161.30
1981	336.3	698.6	464.0	453.7	R868.7	80.40	122.17	90.03	94.30	R180.56
1982	347.4	864.3	515.4	514.4	R928.3	86.34	146.20	104.09	108.73	R196.22
1983	283.8	608.1	366.5	371.7	R645.3	72.65	108.37	79.10	83.34	R144.68
1984	262.1	489.8	329.2	326.5	R546.2	66.32	88.80	67.18	71.90	R120.30
1985	270.4	508.7	372.3	349.4	R567.4	66.78	93.09	73.69	75.35	R122.37
1986	284.9	522.9	389.2	364.6	R579.3	68.35	93.02	76.53	76.88	R122.15
1987	246.0	380.4	259.1	279.6	R431.7	58.35	69.55	51.05	58.71	R90.65
1988	279.4	460.3	366.4	354.7	R529.5	62.28	84.65	66.96	70.23	R104.84
1989	282.3	457.8	355.4	362.2	R521.1	64.92	86.86	67.61	73.55	R105.80
1990	321.8	471.3	367.5	383.6	R531.3	69.17	90.73	67.49	76.07	R105.36
1991	346.9	506.6	441.2	421.5	R563.7	73.75	93.10	83.05	82.64	R110.54
1992	362.3	426.1	357.6	382.6	R499.9	69.50	72.83	67.82	70.27	R91.82
1993	356.6	521.2	387.7	426.8	R545.6	67.52	83.15	72.56	75.30	R96.26
1994	409.5	535.1	491.5	483.2	R605.0	70.57	81.90	86.60	79.49	R99.52
1995	415.8	629.7	481.2	513.4	R629.7	78.09	95.97	84.60	87.22	R106.97
1996	341.0	616.0	541.0	496.1	R597.1	70.60	98.67	95.74	88.92	R107.02
1997	445.6	728.6	655.6	603.9	R714.2	90.48	117.55	115.09	107.83	R127.53
1998	566.0	815.6	973.2	769.1	R899.4	108.88	127.94	157.79	128.97	R150.82
1999	783.0	798.4	1,115.5	856.1	R986.7	156.45	138.42	182.99	152.02	R175.20
2000	593.4	756.9	1,075.4	754.6	R851.2	125.96	138.39	181.83	142.16	R160.37
2001	729.1	896.5	1,620.4	943.2	R1,040.4	153.72	172.05	271.63	181.94	R200.71
2002	882.8	991.9	1,673.4	1,054.2	R1,144.4	194.55	175.78	284.17	195.31	R212.02
2003	1,037.3	1,106.0	2,065.1	1,199.5	R1,274.8	221.13	189.95	345.94	216.27	R229.83
2004	1,441.8	1,716.4	1,977.3	1,673.1	R1,729.0	298.45	284.78	327.91	292.57	R302.34
2005	1,920.4	1,497.6	2,392.9	1,720.7	R1,720.7	314.36	280.03	429.92	306.50	R306.50
2006	2,238.6	1,936.2	2,664.6	2,101.7	R2,035.4	402.45	348.36	479.33	378.03	R366.11
2007	4,000.4	3,906.9	6,131.2	4,171.7	R3,927.7	717.13	604.06	1,132.09	688.30	R648.03
2008	4,623.7	5,283.8	6,331.2	5,135.9	4,734.3	778.14	701.42	1,213.81	782.31	721.14

¹ See "Crude Oil Well" in Glossary.

² See "Natural Gas Well" in Glossary.

³ See "Dry Hole" in Glossary.

⁴ See "Nominal Dollars" in Glossary.

⁵ In chained (2005) dollars, calculated by using gross domestic product implicit price deflators in Table D1. See "Chained Dollars" in Glossary.

R=Revised.

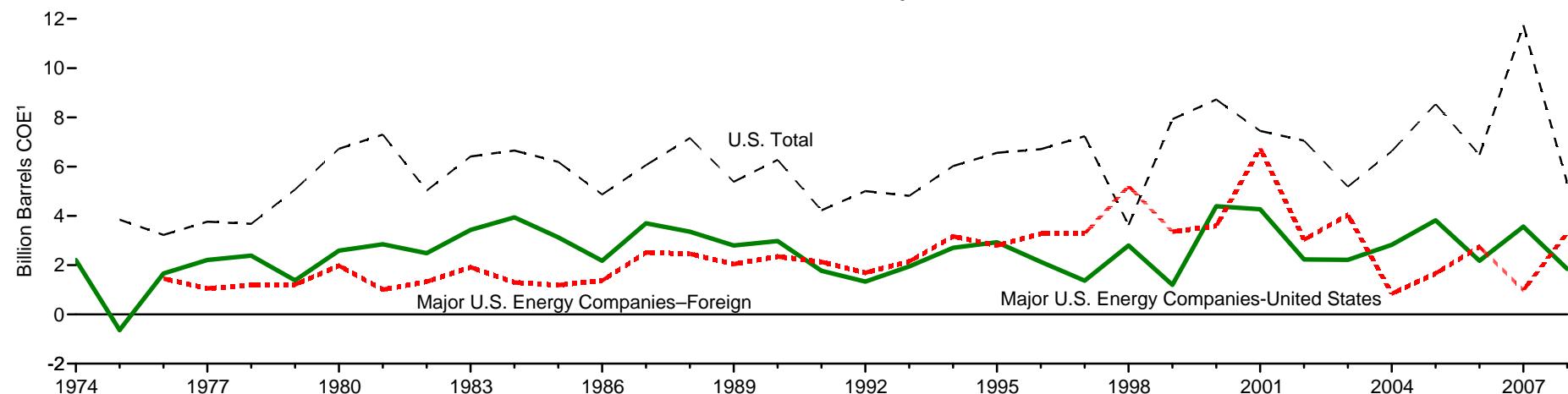
Notes: • The information reported for 1965 and prior years is not strictly comparable to that in more recent surveys. • Average cost is the arithmetic mean and includes all costs for drilling and equipping wells and for surface-producing facilities. Wells drilled include exploratory and development wells; excludes service wells, stratigraphic tests, and core tests. See "Development Well" and "Exploratory Well" in Glossary.

Web Page: For related information, see <http://www.api.org/statistics/accessapi/surveys/index.cfm>.

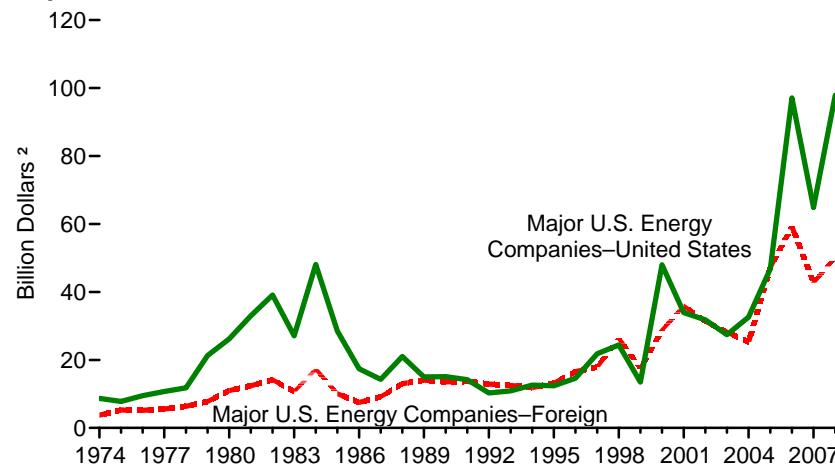
Source: American Petroleum Institute, 2008 Joint Association Survey on Drilling Costs (January 2010).

Figure 4.9 Crude Oil, Natural Gas, and Natural Gas Liquids Gross Additions to Proved Reserves, and Exploration and Development Expenditures

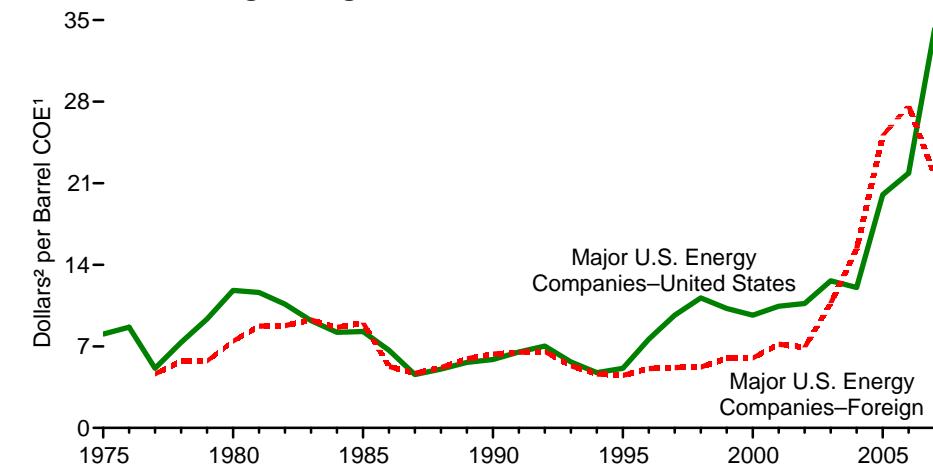
Gross Additions to Proved Reserves of Crude Oil, Natural Gas, and Natural Gas Liquids, 1974-2008



Crude Oil and Natural Gas Exploration and Development Expenditures, 1974-2008



**Expenditures per Barrel of Reserve Additions, 1975-2007
Three-Year Moving Average**



¹ Crude oil equivalent.

² Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

Note: "Major U.S. Energy Companies" are the top publicly-owned crude oil and natural gas producers and petroleum refiners that form the Financial Reporting System (FRS). See Table 3.14.

Source: Table 4.9.

Table 4.9 Crude Oil, Natural Gas, and Natural Gas Liquids Gross Additions to Proved Reserves, and Exploration and Development Expenditures, 1974-2008

Year	Gross Additions to Proved Reserves ¹ of Crude Oil, Natural Gas, and Natural Gas Liquids			Crude Oil and Natural Gas Exploration and Development Expenditures		Expenditures per Barrel of Reserve Additions, Three-Year Moving Average	
	U.S. Total	Major U.S. Energy Companies ²		Major U.S. Energy Companies ²		Major U.S. Energy Companies ²	
		United States	Foreign	United States	Foreign	United States	Foreign
Year	Million Barrels COE ³			Billion Dollars ⁴		Dollars ⁴ per Barrel COE ³	
1974	NA	2,205	NA	8.7	3.8	NA	NA
1975	3,846	-634	NA	7.8	5.3	8.05	NA
1976	3,224	1,663	1,459	9.5	5.2	8.64	NA
1977	3,765	2,210	1,055	10.7	5.6	5.12	4.64
1978	3,679	2,383	1,191	11.8	6.4	7.34	5.73
1979	5,071	1,378	⁵ 1,208	21.3	7.8	9.34	⁵ 5.75
1980	6,723	2,590	1,977	26.2	11.0	11.80	7.45
1981	7,304	2,848	1,006	33.0	12.4	11.63	8.74
1982	5,030	2,482	1,332	39.1	14.2	⁶ 10.62	⁶ 8.78
1983	6,412	3,427	1,918	27.1	10.7	9.20	9.28
1984	6,653	3,941	1,298	48.1	17.3	⁶ 8.21	⁶ 8.63
1985	6,190	⁷ 3,129	1,192	28.5	10.1	78.27	9.03
1986	4,866	2,178	⁵ 1,375	17.4	7.5	6.67	⁵ 5.28
1987	6,059	⁷ 3,698	2,516	14.3	9.2	74.58	4.69
1988	7,156	3,359	2,460	21.0	13.0	5.05	5.18
1989	5,385	2,798	2,043	15.0	14.1	5.62	5.94
1990	6,275	2,979	2,355	15.1	13.6	5.87	6.34
1991	4,227	1,772	2,135	14.2	13.7	6.52	6.50
1992	5,006	1,332	1,694	10.3	12.9	7.02	6.55
1993	4,814	1,945	2,147	10.9	12.5	5.66	5.33
1994	6,021	2,703	3,173	12.6	11.9	4.74	4.63
1995	6,558	2,929	2,799	12.4	13.2	5.11	4.51
1996	6,707	2,131	3,280	14.6	16.6	7.61	5.10
1997	7,233	1,367	3,279	21.8	17.9	9.67	5.18
1998	3,628	2,798	5,206	24.4	26.4	11.15	5.22
1999	7,929	1,197	3,360	13.5	17.5	10.25	5.98
2000	8,725	4,392	3,593	48.0	28.8	9.67	6.01
2001	7,449	4,271	6,744	33.9	35.9	10.44	7.19
2002	7,056	2,232	3,036	31.8	31.4	^R 10.67	6.91
2003	5,189	2,216	4,047	^R 27.4	28.2	^R 12.62	10.71
2004	6,624	2,825	841	^R 32.6	25.3	^R 12.05	15.38
2005	8,543	3,818	1,664	^R 46.8	47.3	^R 20.01	25.09
2006	6,479	2,175	2,747	^R 97.1	59.2	^R 21.86	27.64
2007	11,745	3,560	985	^R 64.9	42.7	^R 34.27	^R 21.62
2008	5,335	1,848	3,309	97.9	50.3	NA	NA

¹ Gross additions to proved reserves equal annual change in proved reserves plus annual production. See "Proved Reserves, Crude Oil," "Proved Reserves, Natural Gas," and "Proved Reserves, Natural Gas Liquids" in Glossary.

² "Major U.S. Energy Companies" are the top publicly-owned, U.S.-based crude oil and natural gas producers and petroleum refiners that form the Financial Reporting System (FRS) (see Table 3.14).

³ Crude oil equivalent: converted to Btu on the basis of annual average conversion factors. See Appendix A.

⁴ Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

⁵ Data for 1979 exclude downward revisions of 1,225 million barrels COE due to Iranian policies. Data for 1986 exclude downward revisions due to Libyan sanctions.

⁶ Data for 1982 and 1984 are adjusted to exclude purchases of proved reserves associated with mergers among the FRS companies.

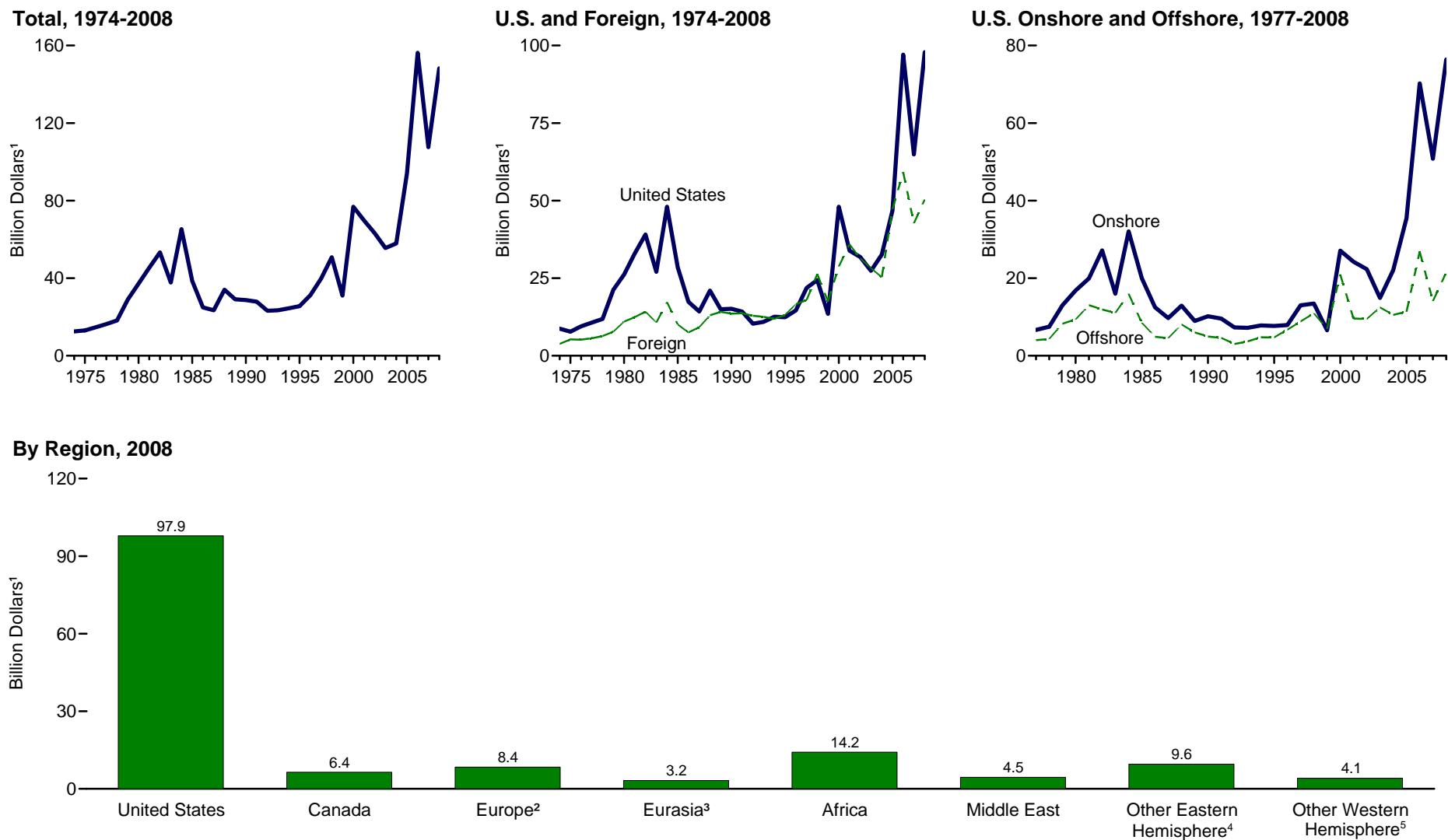
⁷ Data for 1985 and 1987 exclude downward revisions of 1,477 million barrels COE and 2,396 million barrels COE, respectively, of Alaska North Slope natural gas reserves.

R=Revised. NA=Not available.

Web Page: For related information, see <http://www.eia.gov/emeu/finance>.

Sources: **Major U.S. Energy Companies:** • 1974-1976—U.S. Energy Information Administration (EIA), Form EIA-28, "Financial Reporting System" database, November 1997. • 1977 forward—EIA, *Performance Profiles of Major Energy Producers*, annual reports. **U.S. Total, Gross Additions to Proved Reserves:** • 1975-1979—American Gas Association, American Petroleum Institute, and Canadian Petroleum Association (published jointly), *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada as of December 31, 1979*, Volume 34 (June 1980). • 1980 forward—EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, annual reports.

Figure 4.10 Major U.S. Energy Companies' Expenditures for Crude Oil and Natural Gas Exploration and Development by Region



¹ Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

² Includes all Europe except countries that were part of the former U.S.S.R. See "Union of Soviet Socialist Republics (U.S.S.R.)" in Glossary.

³ Includes only countries that were part of the former U.S.S.R. See "Eurasia" and "Union of Soviet Socialist Republics (U.S.S.R.)" in Glossary.

⁴ This region includes areas that are eastward of the Greenwich prime meridian to 180° longitude and that are not included in other domestic or foreign classifications.

⁵ This region includes areas that are westward of the Greenwich prime meridian to 180° longitude and that are not included in other domestic or foreign classifications.

Note: "Major U.S. Energy Companies" are the top publicly-owned, U.S.-based crude oil and natural gas producers and petroleum refiners that form the Financial Reporting System (FRS). See Table 3.14.

Source: Table 4.10.

Table 4.10 Major U.S. Energy Companies' Expenditures for Crude Oil and Natural Gas Exploration and Development by Region, 1974-2008 (Billion Dollars ¹)

Year	United States			Foreign									Total
	Onshore	Offshore	Total	Canada	Europe ²	Eurasia ³	Africa	Middle East	Other Eastern Hemisphere ⁴	Other Western Hemisphere ⁵			
1974	NA	NA	8.7	NA	NA	--	NA	NA	NA	NA	3.8		12.5
1975	NA	NA	7.8	NA	NA	--	NA	NA	NA	NA	5.3		13.1
1976	NA	NA	9.5	NA	NA	--	NA	NA	NA	NA	5.2		14.7
1977	6.7	4.0	10.7	1.5	2.5	--	.7	.2	.3	.4	5.6		16.3
1978	7.5	4.3	11.8	1.6	2.6	--	.8	.3	.4	.6	6.4		18.2
1979	13.0	8.3	21.3	2.3	3.0	--	.8	.2	.5	.8	7.8		29.1
1980	16.8	9.4	26.2	3.1	4.3	--	1.4	.2	.8	1.0	11.0		37.2
1981	19.9	13.0	33.0	1.8	5.0	--	2.1	.3	1.9	1.3	12.4		45.4
1982	27.2	11.9	39.1	1.9	6.3	--	2.1	.4	2.4	1.1	14.2		53.3
1983	16.0	11.1	27.1	1.6	4.3	--	1.7	.5	2.0	.6	10.7		37.7
1984	32.1	16.0	48.1	5.4	5.5	--	3.4	.5	2.0	.5	17.3		65.3
1985	20.0	8.5	28.5	1.9	3.7	--	1.6	.9	1.3	.7	10.1		38.6
1986	12.5	4.9	17.4	1.1	3.2	--	1.1	.3	1.2	.6	7.5		24.9
1987	9.7	4.5	14.3	1.9	3.0	--	.8	.4	2.8	.5	9.2		23.5
1988	12.9	8.1	21.0	5.4	4.3	--	.8	.4	1.4	.7	13.0		34.1
1989	9.0	6.0	15.0	6.3	3.5	--	1.0	.4	2.3	.6	14.1		29.1
1990	10.2	4.9	15.1	1.8	6.6	--	1.4	.6	2.4	.7	13.6		28.7
1991	9.6	4.6	14.2	1.7	6.8	--	1.5	.5	2.4	.7	13.7		27.9
1992	7.3	3.0	10.3	1.1	6.8	--	1.4	.6	2.4	.6	12.9		23.2
1993	7.2	3.7	10.9	1.6	5.5	.3	1.5	.7	2.5	.6	12.5		23.5
1994	7.8	4.8	12.6	1.8	4.4	.3	1.4	.4	2.8	.7	11.9		24.5
1995	7.7	4.7	12.4	1.9	5.2	.4	2.0	.4	2.4	.9	13.2		25.6
1996	7.9	6.7	14.6	1.6	5.6	.5	2.8	.5	4.1	1.6	16.6		31.3
1997	13.0	8.8	21.8	2.0	7.1	.6	3.0	.6	3.0	1.6	17.9		39.8
1998	13.5	11.0	24.4	4.8	8.6	1.3	3.1	.9	3.9	3.7	26.4		50.8
1999	6.6	6.9	13.5	2.1	4.1	.6	3.1	.4	3.4	3.8	17.5		31.0
2000	27.1	21.0	48.0	4.9	7.5	.9	2.7	.6	6.8	5.4	28.8		76.8
2001	24.2	9.6	33.9	15.3	5.4	.9	5.5	.7	5.0	3.1	35.9		69.8
2002	22.3	9.5	31.8	6.7	9.8	1.3	5.1	.8	6.2	1.6	31.4		63.2
2003	R14.9	12.5	R27.4	4.9	5.7	2.1	9.2	1.0	4.2	1.1	28.2		R55.6
2004	R22.1	10.5	R32.6	5.3	4.4	2.0	6.9	1.3	3.8	1.6	25.3		R57.9
2005	R35.5	11.3	R46.8	9.1	6.1	6.3	10.7	1.5	12.0	1.7	47.3		R94.1
2006	R70.2	26.8	R97.1	17.0	29.0	32.4	12.9	3.1	6.6	8.2	59.2		R156.2
2007	R50.8	14.1	R64.9	5.8	8.1	2.9	12.5	3.2	6.8	3.4	42.7		R107.6
2008	76.4	21.5	97.9	6.4	8.4	3.2	14.2	4.5	9.6	4.1	50.3		148.2

¹ Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

² Through 2005, includes Austria, Belgium, Denmark, Finland, France, Germany (the Federal Republic of), Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom. Beginning in 2006, includes all Europe except countries that were part of the former U.S.S.R. See "Union of Soviet Socialist Republics (U.S.S.R.)" in Glossary.

³ Through 2005, includes countries that were part of the former U.S.S.R. as well as Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Macedonia, Serbia and Montenegro, Slovakia, and Slovenia. Beginning in 2006, includes only countries that were part of the former U.S.S.R. See "Eurasia" and "Union of Soviet Socialist Republics (U.S.S.R.)" in Glossary.

⁴ This region includes areas that are eastward of the Greenwich prime meridian to 180° longitude and that are not included in other domestic or foreign classifications.

⁵ This region includes areas that are westward of the Greenwich prime meridian to 180° longitude and that are not included in other domestic or foreign classifications.

R=Revised. NA=Not available. --=Not applicable.

Notes: • "Major U.S. Energy Companies" are the top publicly-owned, U.S.-based crude oil and natural gas producers and petroleum refiners that form the Financial Reporting System (FRS). See Table 3.14.

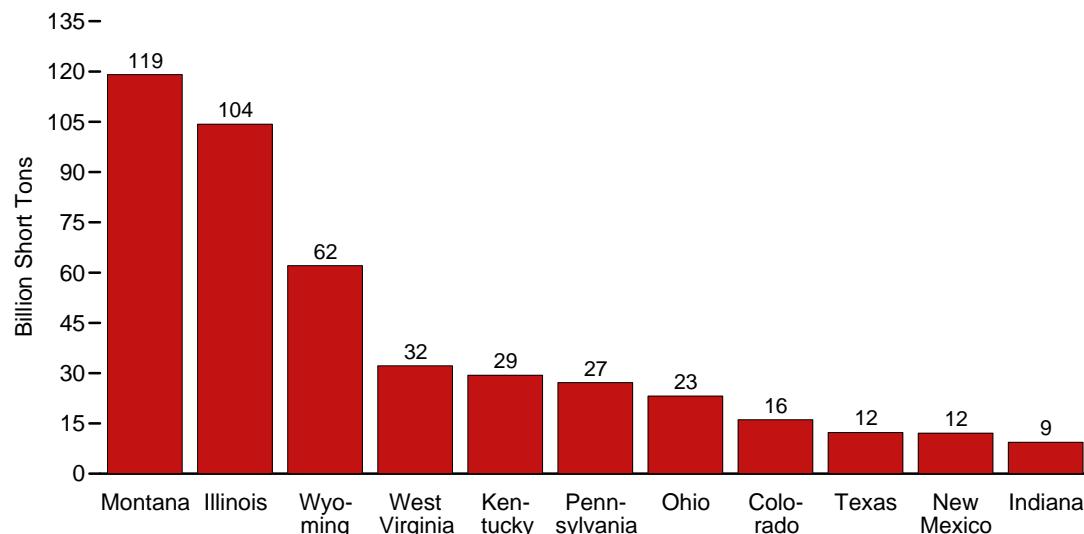
• Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.gov/emeu/finance>.

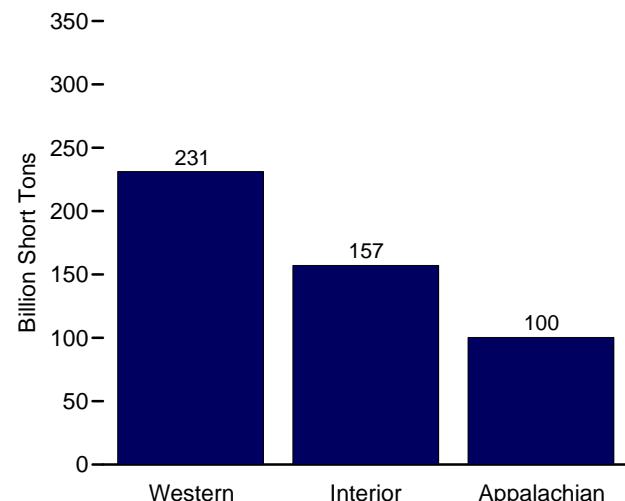
Sources: • 1974-1976—U.S. Energy Information Administration (EIA), Office of Energy Markets and End Use, FRS Database, November 1997. • 1977 forward—EIA, *Performance Profiles of Major Energy Producers*, annual reports.

Figure 4.11 Coal Demonstrated Reserve Base, January 1, 2009

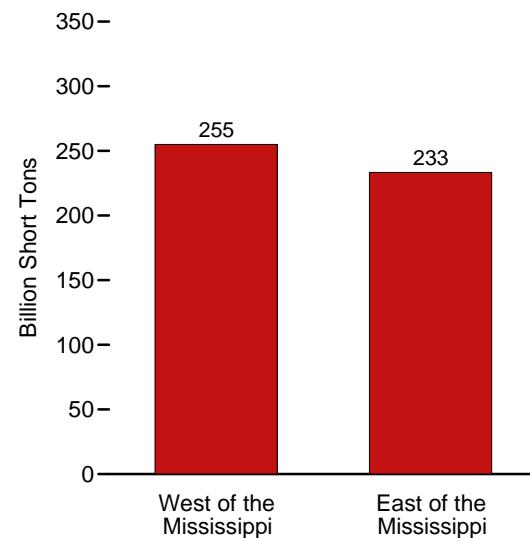
By Key State



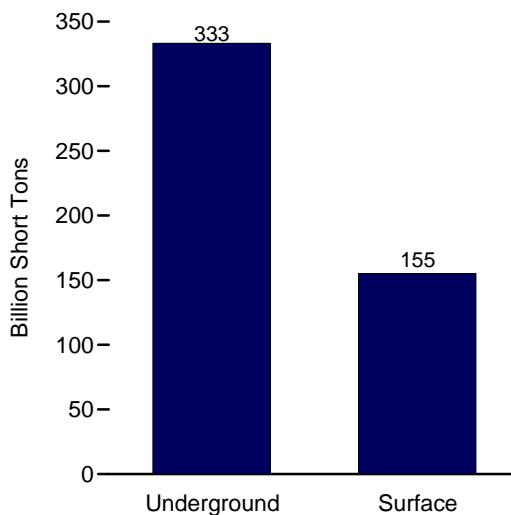
By Region



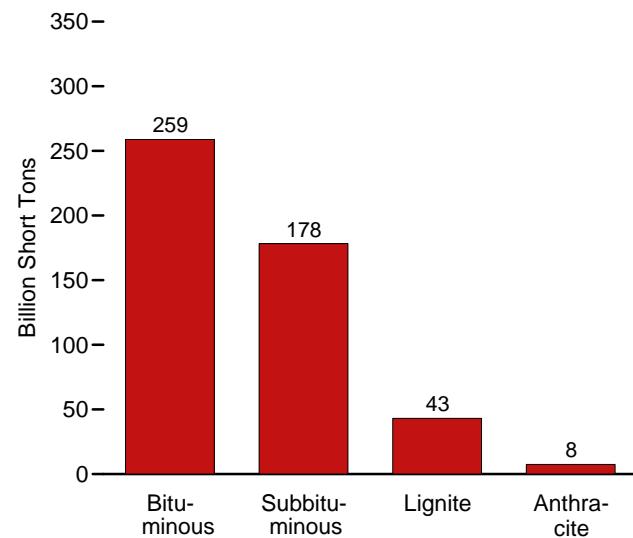
West and East of the Mississippi



By Mining Method



By Rank



Source: Table 4.11.

Table 4.11 Coal Demonstrated Reserve Base, January 1, 2009
 (Billion Short Tons)

Region and State	Anthracite		Bituminous Coal		Subbituminous Coal		Lignite	Total		
	Underground	Surface	Underground	Surface	Underground	Surface	Surface ¹	Underground	Surface	Total
Appalachian	4.0	3.4	69.0	22.2	0.0	0.0	1.1	73.0	26.6	99.6
Alabama .....	.0	.0	.9	2.1	.0	.0	1.1	.9	3.2	4.1
Kentucky, Eastern .....	.0	.0	.9	9.2	.0	.0	.0	.9	9.2	10.1
Ohio .....	.0	.0	17.4	5.7	.0	.0	.0	17.4	5.7	23.2
Pennsylvania	3.8	3.4	19.1	.9	.0	.0	.0	22.9	4.2	27.1
Virginia .....	.1	.0	.9	.5	.0	.0	.0	1.0	.5	1.6
West Virginia .....	.0	.0	28.7	3.5	.0	.0	.0	28.7	3.5	32.2
Other ² .....	.0	.0	1.1	.3	.0	.0	.0	1.1	.3	1.4
Interior .....	.1	.0	116.9	27.2	.0	.0	12.7	117.0	39.8	156.8
Illinois .....	.0	.0	87.8	16.5	.0	.0	.0	87.8	16.5	104.3
Indiana .....	.0	.0	8.7	.7	.0	.0	.0	8.7	.7	9.3
Iowa .....	.0	.0	1.7	.5	.0	.0	.0	1.7	.5	2.2
Kentucky, Western .....	.0	.0	15.7	3.6	.0	.0	.0	15.7	3.6	19.3
Missouri .....	.0	.0	1.5	4.5	.0	.0	.0	1.5	4.5	6.0
Oklahoma .....	.0	.0	1.2	.3	.0	.0	.0	1.2	.3	1.5
Texas .....	.0	.0	.0	.0	.0	.0	12.2	.0	12.2	12.2
Other ³ .....	.1	.0	.3	1.1	.0	.0	0.4	.4	1.5	1.9
Western	(s)	.0	21.3	2.3	121.2	57.1	29.3	142.6	88.6	231.2
Alaska .....	.0	.0	.6	.1	4.8	.6	(s)	5.4	.7	6.1
Colorado	(s)	.0	7.5	.6	3.7	.0	4.2	11.3	4.8	16.0
Montana .....	.0	.0	1.4	.0	69.6	32.4	15.8	71.0	48.1	119.1
New Mexico	(s)	.0	2.7	.9	3.5	5.0	.0	6.1	5.9	12.0
North Dakota .....	.0	.0	.0	.0	.0	.0	8.9	.0	8.9	8.9
Utah .....	.0	.0	5.0	.3	(s)	.0	.0	5.0	.3	5.2
Washington .....	.0	.0	.3	.0	1.0	.0	(s)	1.3	.0	1.3
Wyoming .....	.0	.0	3.8	.5	38.6	19.1	.0	42.5	19.6	62.1
Other ⁴ .....	.0	.0	.0	.0	(s)	(s)	.4	(s)	.4	.4
U.S. Total	4.1	3.4	207.2	51.6	121.2	57.1	43.0	332.6	155.1	487.7
States East of the Mississippi River	4.0	3.4	181.2	43.0	.0	.0	1.1	185.1	47.4	232.6
States West of the Mississippi River .....	.1	.0	26.1	8.6	121.2	57.1	41.9	147.4	107.7	255.1

¹ Lignite resources are not mined underground in the United States.

² Georgia, Maryland, North Carolina, and Tennessee.

³ Arkansas, Kansas, Louisiana, and Michigan.

⁴ Arizona, Idaho, Oregon, and South Dakota.

(s)=Less than 0.05 billion short tons.

Notes: • See U.S. Coal Reserves: 1997 Update on the Web Page for a description of the methodology used to produce these data. • Data represent remaining measured and indicated coal resources, analyzed

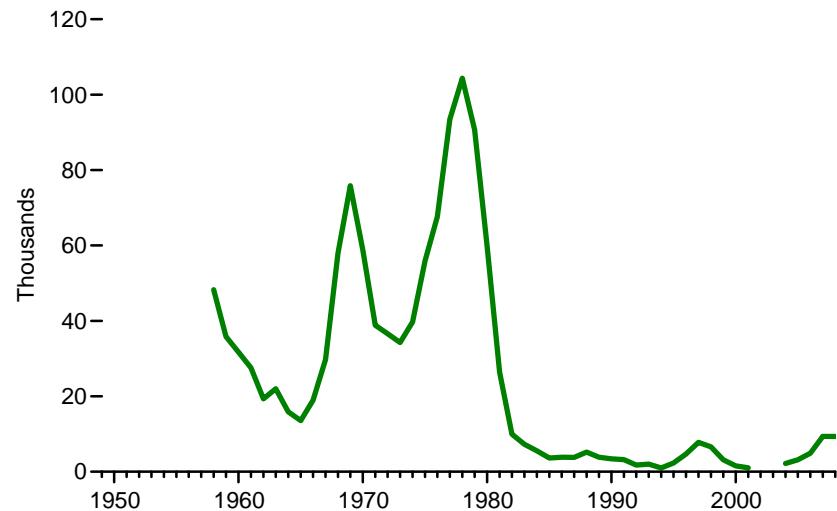
and on file, meeting minimum seam and depth criteria, and in the ground as of January 1, 2009. These coal resources are not totally recoverable. Net recoverability with current mining technologies ranges from 0 percent (in far northern Alaska) to more than 90 percent. Fifty-four percent of the demonstrated reserve base of coal in the United States is estimated to be recoverable. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.gov/fuelcoal.html>.

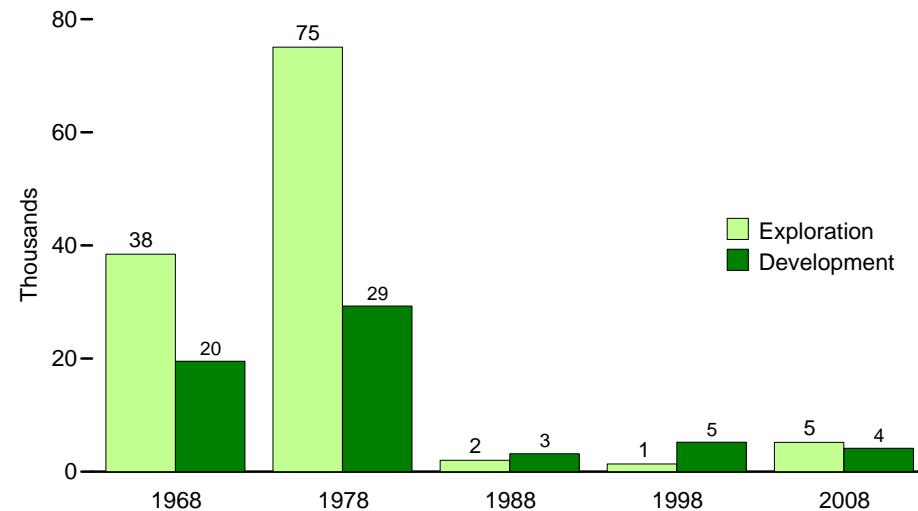
Source: U.S. Energy Information Administration, Coal Reserves Database.

Figure 4.12 Uranium Exploration and Development Drilling

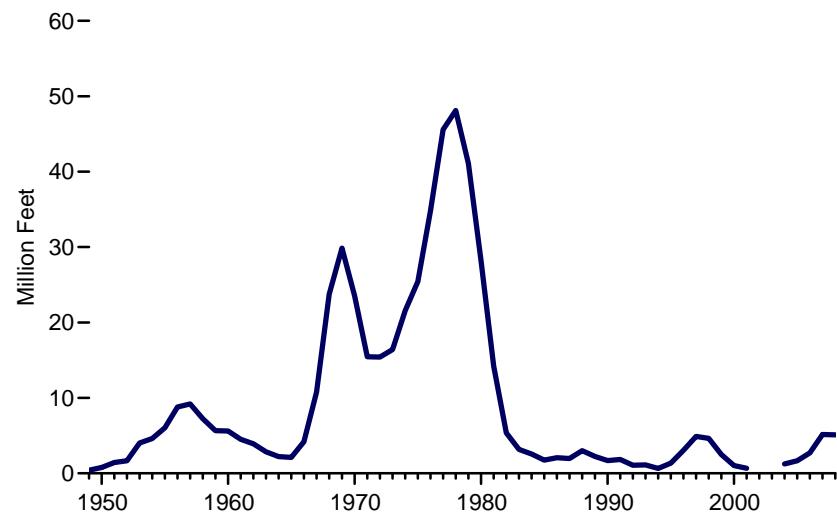
Total Holes Drilled, 1958-2001 and 2004-2008



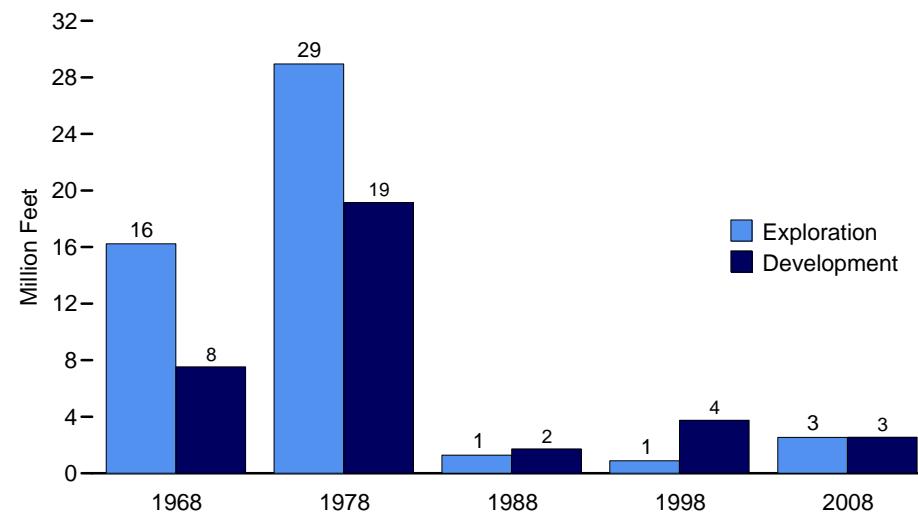
Holes Drilled, Selected Years



Total Footage Drilled, 1949-2001 and 2004-2008



Footage Drilled, Selected Years



Source: Table 4.12.

Table 4.12 Uranium Exploration and Development Drilling, Selected Years, 1949-2008

	Exploration ¹		Development ²		Total	
	Holes Drilled	Footage Drilled	Holes Drilled	Footage Drilled	Holes Drilled	Footage Drilled
Year	Thousands	Million Feet	Thousands	Million Feet	Thousands	Million Feet
1949	NA	0.36	NA	0.05	NA	0.41
1950	NA	.57	NA	.21	NA	.78
1955	NA	5.27	NA	.76	NA	6.03
1960	7.34	1.40	24.40	4.21	31.73	5.61
1965	6.23	1.16	7.33	.95	13.56	2.11
1970	43.98	17.98	14.87	5.55	58.85	23.53
1971	28.42	11.40	10.44	4.05	38.86	15.45
1972	26.91	11.82	9.71	3.61	36.62	15.42
1973	22.56	10.83	11.70	5.59	34.26	16.42
1974	27.40	14.72	12.30	6.84	39.70	21.56
1975	34.29	15.69	21.60	9.73	55.89	25.42
1976	40.41	20.36	27.23	14.44	67.64	34.80
1977	62.60	27.96	30.86	17.62	93.45	45.58
1978	75.07	28.95	29.29	19.15	104.35	48.10
1979	60.46	28.07	30.19	13.01	90.65	41.08
1980	39.61	19.60	20.19	8.59	59.80	28.19
1981	17.75	10.87	8.67	3.35	26.42	14.22
1982	6.97	4.23	3.00	1.13	9.97	5.36
1983	4.29	2.09	3.01	1.08	7.30	3.17
1984	4.80	2.26	.72	.29	5.52	2.55
1985	2.88	1.42	.77	.34	3.65	1.76
1986	1.99	1.10	1.85	.97	3.83	2.07
1987	1.82	1.11	1.99	.86	3.81	1.97
1988	2.03	1.28	3.18	1.73	5.21	3.01
1989	2.09	1.43	1.75	.80	3.84	2.23
1990	1.51	.87	1.91	.81	3.42	1.68
1991	1.62	.97	1.57	.87	3.20	1.84
1992	.94	.56	.83	.50	1.77	1.06
1993	.36	.22	1.67	.89	2.02	1.11
1994	.52	.34	.48	.32	1.00	.66
1995	.58	.40	1.73	.95	2.31	1.35
1996	1.12	.88	3.58	2.16	4.70	3.05
1997	1.94	1.33	5.86	3.56	7.79	4.88
1998	1.37	.89	5.23	3.75	6.60	4.64
1999	.27	.18	2.91	2.33	3.18	2.50
2000	W	W	W	W	1.55	1.02
2001	.00	.00	1.02	.66	1.02	.66
2002	W	W	W	W	W	W
2003	NA	NA	NA	NA	W	W
2004	W	W	W	W	2.19	1.25
2005	W	W	W	W	3.14	1.67
2006	1.47	.82	3.43	1.89	4.90	2.71
2007	4.35	2.20	5.00	2.95	9.35	5.15
2008	5.20	2.54	4.16	2.55	9.36	5.09

¹ Includes surface drilling in search of new ore deposits or extensions of known deposits and drilling at the location of a discovery up to the time the company decides sufficient ore reserves are present to justify commercial exploitation.

² Includes all surface drilling on an ore deposit to determine more precisely size, grade, and configuration subsequent to the time that commercial exploitation is deemed feasible.

NA=Not available. W=Value withheld to avoid disclosure of individual company data.

Notes: • Data for 2009 were not available in time for this publication. For data updates, see <http://www.eia.gov/fuelnuclear.html>. • Totals may not equal sum of components due to independent

rounding.

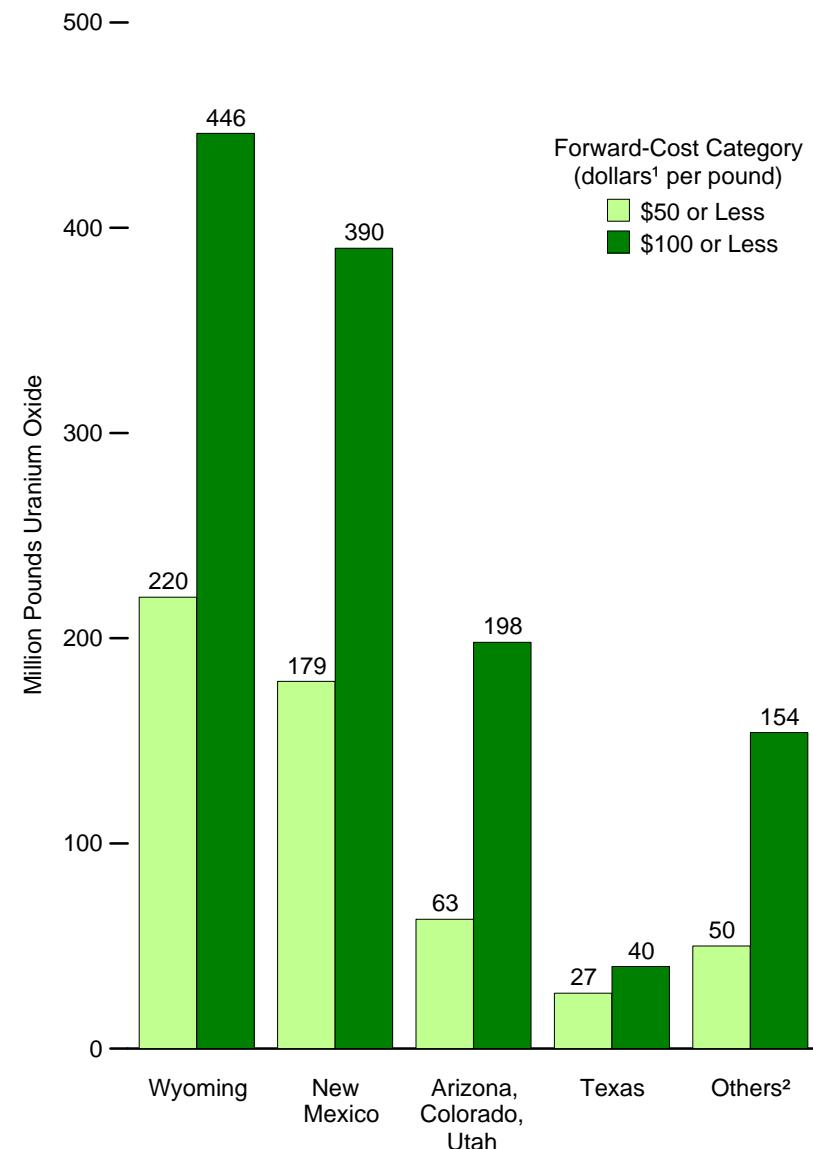
Web Pages: • For all data beginning in 1949, see <http://www.eia.gov/emeu/aer/resource.html>.

• For related information, see <http://www.eia.gov/fuelnuclear.html>.

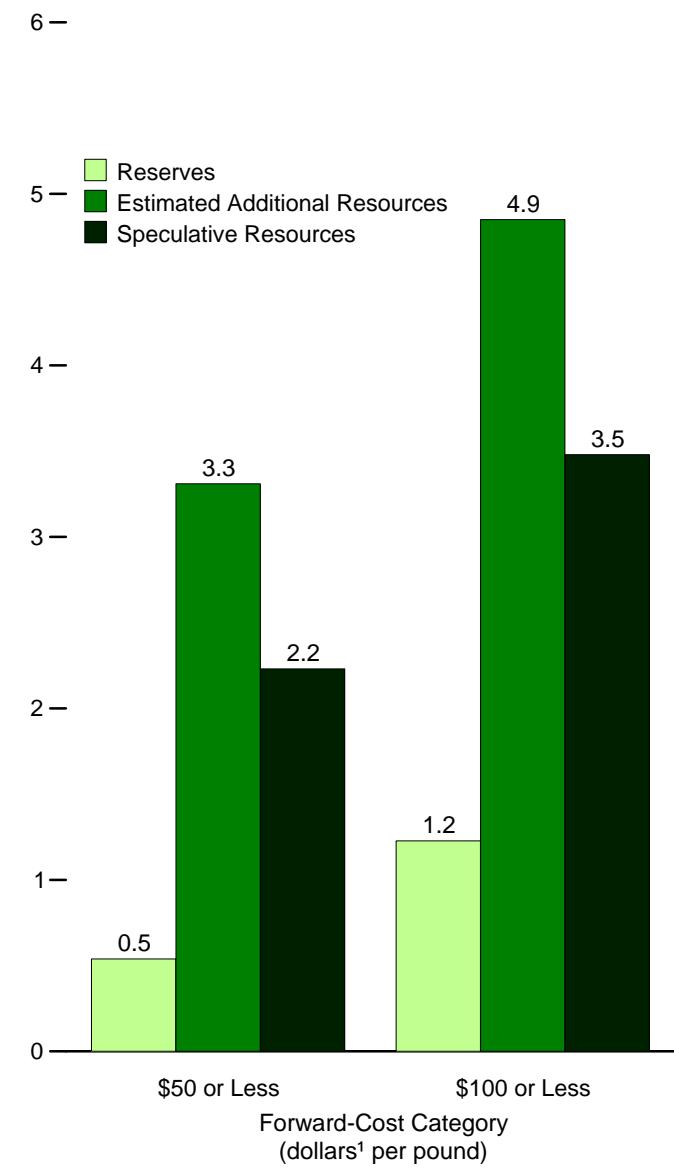
Sources: • 1949-1981—U.S. Department of Energy, Grand Junction Office, *Statistical Data of the Uranium Industry, January 1, 1983*, Report No. GJO-100 (1983), Table VIII-5. • 1982-2002—U.S. Energy Information Administration (EIA), *Uranium Industry Annual*, annual reports. • 2003 forward—EIA, "Domestic Uranium Production Report" (May 2009).

Figure 4.13 Uranium Reserves and Resources, 2008

Reserves



Reserves and Resources



¹ Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

² Alaska, California, Idaho, Montana, Nebraska, Nevada, North Dakota, Oregon, South Dakota, Virginia, and Washington.

Notes: • See "Uranium Oxide" in Glossary. • Data are at end of year.

Source: Table 4.13.

Table 4.13 Uranium Reserves and Resources, 2008
 (Million Pounds Uranium Oxide)

Resource Category and State	Forward-Cost ¹ Category (dollars ² per pound)	
	\$50 or Less	\$100 or Less
Reserves ³		
Wyoming	539	1,227
New Mexico	220	446
Arizona, Colorado, Utah	179	390
Texas	63	198
Others ⁴	27	40
	50	154
Potential Resources ⁵		
Estimated Additional Resources	3,310	4,850
Speculative Resources	2,230	3,480

¹ Forward costs include the costs for power and fuel, labor, materials, insurance, severance and ad valorem taxes, and applicable administrative costs. Past capital costs are considered "sunk" costs and mining of the individual deposits may or may not return such costs to investors. Sunk costs for such items as exploration and land acquisition are excluded as are the costs for income taxes, profit, and the cost of money. The forward costs used to estimate U.S. uranium ore reserves are independent of the price at which uranium produced from the estimated reserves might be sold in the commercial market. Resource values in forward-cost categories are cumulative; that is, the quantity at each level of forward cost includes all reserves/resources at the lower cost in that category.

² Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

³ The U.S. Energy Information Administration (EIA) category of uranium reserves is equivalent to the internationally reported category of "Reasonably Assured Resources" (RAR).

⁴ Alaska, California, Idaho, Montana, Nebraska, Nevada, North Dakota, Oregon, South Dakota, Virginia,

and Washington.

⁵ Shown are the mean values for the distribution of estimates for each forward-cost category, rounded to the nearest million pounds uranium oxide.

Notes: • Estimates are at end of year. • See "Uranium Oxide" in Glossary. • For updates, see <http://www.eia.gov/cneaf/nuclear/page/reserves/ures.html>.

Web Page: For related information, see <http://www.eia.gov/fuelnuclear.html>.

Sources: **Reserves:** EIA, *U.S. Uranium Reserves Estimates* (July 2010), Table 1. **Potential Resources:** EIA estimates based on uranium resources data developed under the National Uranium Resource Evaluation program and U.S. Geological Survey Uranium Resource Assessment Project using methodology described in *Uranium Resource Assessment by the Geological Survey: Methodology and Plan to Update the National Resource Base*, U.S. Geological Survey Circular 994 (1987).

